

DEPARTMENT OF THE NAVY

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> 5090 Ser BPMOW.wed/0800 September 27, 2006

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Dear Mr. Narala and Ms. Lee:

Enclosed are cover pages and/or compact discs of the September 27, 2006, Final Site 1 Landfill 2005 Annual Report for your records. No comments were received on the April 19, 2006, Draft Site 1 Landfill 2005 Annual Report. Please replace the cover pages of the draft report with the enclosed pages. This report summarizes the Site 1 monitoring and maintenance activities for four quarterly events in 2005.

This report has been prepared for the Navy's environmental restoration at Moffett Field. Please contact me, at 619-532-0952, if you have any questions or need clarification.

Sincerely

RICHARD C. WEISSENBORN
Base Realignment and Closure
Environmental Coordinator
By direction of the Director

Enclosure: 1. Final Site 1 Landfill 2005 Annual Report

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FINAL
SITE 1 LANDFILL
2005 ANNUAL REPORT
Revision 1
September 27, 2006

FORMER NAVAL AIR STATION MOFFETT FIELD MOFFETT FIELD, CALIFORNIA

Base Realignment and Closure Program Management Office West 1455 Frazee Road, Suite 900 San Diego, California 92108

CTO No. 0086

FINAL SITE 1 LANDFILL 2005 ANNUAL REPORT Revision 1 September 27, 2006

FORMER NAVAL AIR STATION MOFFETT FIELD MOFFETT FIELD, CALIFORNIA

DCN: FWSD-RAC-06-0663



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TABLE OF CONTENTS

	PAGE
LIST	OF TABLESiii
LIST	OF FIGURESiv
ABE	REVIATIONS AND ACRONYMSv
EXE	CUTIVE SUMMARYES-1
1.0	INTRODUCTION
2.0	GROUNDWATER HY DRAULICS 2-1 2.1 GROUNDWATER GRADIENT AND FLOW DIRECTION 2-2 2.2 WATER LEVEL TRENDS 2-3
3.0	GROUNDWATER SAMPLING 3-1 3.1 ANALYTICAL RESULTS 3-1 3.1.1 Analytical Testing 3-1 3.1.2 Statistical Evaluation 3-3 3.1.3 Visual Trends 3-3 3.2 GROUNDWATER QUALITY EVALUATION 3-3 3.2.1 April 2005 Sampling Event 3-4 3.2.2 October 2005 Sampling Event 3-4 3.2.3 Supplemental Sampling Events 3-4
4.0	METHANE MONITORING
5.0	CONCLUSIONS5-1
6.0	REFERENCES6-1

TABLE OF CONTENTS

(Continued)

APPENDICES

Appendix A	Field Sampling Data
Appendix B	Analytical Summary Tables and Statistical Evaluation Tables
Appendix C	Analytical Data Validation Packages (CD only)
Appendix D	Groundwater Hydrographs
Appendix E	Groundwater Monitoring Point Data Graphs
A ppendix F	Methane Monitoring Data Graphs

Appendix G 2005 General Site Inspection Reports and 2005 Santa Clara County Landfill Inspection Reports

Appendix H Correspondence

LIST OF TABLES

		FOLLOWING PAGE
Table 1-1	Well Construction Information	1-2
Table 2-1	2005 Groundwater Elevations	2-2
Table 3-1	Monitoring Parameters and Calculated Concentration Limits \ldots	3-4
Table 3-2	April 2005 Detected Analytes in Groundwater	3-4
Table 3-3	October 2005 Detected Analytes in Groundwater	3-4
Table 4-1	2005 Landfill Gas Monitoring Well and Gas Vent Methane Mo Results	

LIST OF FIGURES

		FOLLOWING PAGE
Figure 1-1	Regional Location Map	1.2
Figure 1-2	•	
5	Site Location Map	
Figure 2-1	Locations for Site 1 Water Level Measurements	2-2
Figure 2-2	Potentiometric Surface, January 2005	2-2
Figure 2-3	Potentiometric Surface, March 2005	2-2
Figure 2-4	Potentiometric Surface, A pril 2005	2-2
Figure 2-5	Potentiometric Surface, October 2005	2-2
Figure 3-1	Locations for Site 1 Groundwater and Collection Trench Samp	oling 3-2
Figure 4-1	Site 1 Methane Monitoring Locations	4-2

A BBREVIATIONS AND ACRONYMS

μg/L micrograms per liter

umhos/cm micromhos per centimeter

°C degrees Celsius below ground surface bgs BHC benzene hexachloride

CCL calculated concentration limit. constituent of concern

COC

DFH Santa Clara County Department of Environmental Health

DΩ dissolved oxygen DUP duplicate sample

EPA United States Environmental Protection Agency

ft. feet

ft/ft foot per foot GS ground surface GV gas vent estimated value

LGMW landfill gas monitoring well

LTMP Final Site 1 Landfill Post-Closure Long-Term Monitoring Plan Final Site 1 Landfill Post-Closure Long-Term Maintenance Plan Maintenance Plan

MDI. method detection limit. mg/L milligrams per liter

former Naval Air Station Moffett Field Moffett

MΡ monitoring parameter mean sea level msl mV millivolts

North American Datum NAD NAS Naval Air Station

NASA National Aeronautics and Space Administration

NGVD National Geodetic Vertical Datum NTU nephelometric turbidity unit

ABBREVIATIONS AND ACRONYMS

(Continued)

ORP oxidation reduction potential

OU1 Operable Unit 1

pH hydrogen (ion) concentration

ROD Record of Decision

SQL sample quantitation limit

SVOC semivolatile organic compound

Tech Memo Final Technical Memorandum, Site 1 Groundwater Evaluation Process

ToC top of casing

TtFW Tetra Tech FW, Inc.

U analyte not detected above method reporting limit

USFWS United States Fish and Wildlife Service

VOC volatile organic compound

EXECUTIVE SUMMARY

This document summarizes the 2005 monitoring and maintenance activities conducted at the Site 1 Landfill and presents the results of evaluating the post-closure groundwater monitoring data collected at the Site 1 Landfill in 2005. The content of this report meets the requirements of the Moffett Federal Airfield Final Operable Unit 1 Record of Decision and the Title 27 California Code of Regulations, Subchapter 3. The Site 1 Landfill is located at the northern end of the former Naval Air Station Moffett Field, located near Mountain View, California.

Depth-to-groundwater measurements, groundwater sampling, and methane monitoring were conducted at the Site 1 Landfill in April and October 2005 in accordance with the Final Site 1 Landfill Post-Closure Long-Term Monitoring Plan issued in March 2005. Groundwater samples were collected from nine monitoring wells, as well as from collection trench well W1-22. Collection trench well W1-23 could not be sampled due to insufficient water. The analytical monitoring parameters (MPs) include selected metals, volatile organic compounds (VOCs), pesticides, and semivolatile organic compounds (SVOCs).

SVOCs and mercury were analyzed in supplemental groundwater sampling events in January and March 2005 because SVOCs and mercury were not analyzed historically at Site 1. SVOCs and mercury were not detected in these sampling events. Water level measurements also were taken during these supplemental sampling events.

Depth to groundwater measurements were collected from Site 1 Landfill monitoring wells, piezometers, and collection trench wells on January 31, March 7, April 11, and October 3, 2005. The groundwater elevations were similar to previous years. The groundwater flows from north to south at the Site 1 Landfill. The water levels in monitoring well pairs generally show upward potential. Most monitoring wells had seasonal high water levels in March 2005 and seasonal low water levels in October 2005. The seasonal water level fluctuation was on the order of approximately 1 foot.

MP analytical results of 2005 groundwater sampling at Site 1 were evaluated in accordance with the procedures provided in the Final Technical Memorandum, Site 1 Groundwater Evaluation Process (Tech Memo) issued in April 2004. The Tech Memo provided calculated concentration limits (CCLs) for the MPs that were developed based on ecological screening criteria and site-specific attenuation factors for the groundwater. These CCLs are used as initial screening criteria in the groundwater evaluation.

During 2005, no reported VOC or SVOC MP concentrations were greater than the applicable CCLs. Barium concentrations were greater than the applicable CCL in samples from every

monitoring well during both semiannual sampling events in 2005. However, the exceedances were less than historical background levels. Therefore, there was no release from the landfill. Heptachlor was also detected at a concentration greater than the applicable CCL during the April 2005 sampling event. However, the detection was in a sample from a background monitoring well and there was no release from the landfill.

As part of landfill monitoring activities, methane monitoring was conducted for 19 passive gas vent wells within the Site 1 Landfill and 4 landfill gas monitoring wells on the perimeter of the landfill. Methane monitoring was also performed at the perimeter of the site at 150-foot intervals at 21 locations. In general, the percentages of methane gas concentrations within the landfill were lower in October 2005 than in April 2005 and were similar to historical concentrations. None of the perimeter wells showed concentrations of methane above the Title 27 concentration limit of 5 percent (all readings were zero percent). Methane was not detected at any of the perimeter monitoring locations in April or October 2005.

Maintenance activities were conducted at the Site 1 Landfill during 2005 in accordance with the Final Site 1 Landfill Post-Closure Long-Term Maintenance Plan issued in March 2005. These activities included inspection and repair, as required, of the landfill cover (including cutting the grass and the weeds), the raptor perches, landfill gas vents and monitoring wells, groundwater monitoring wells, piezometers, collection trench wells, and stormwater runoff controls. Santa Clara County Department of Environmental Health inspected Site 1 quarterly in 2005. No problems or deficiencies were identified.

1.0 INTRODUCTION

This document summarizes the 2005 monitoring and maintenance activities conducted at the Site 1 Landfill and presents the results of evaluating the post-closure groundwater monitoring data collected at the Site 1 Landfill in 2005. The content of this report meets the requirements of the Moffett Federal Airfield Final Operable Unit 1 [OU1] Record of Decision [ROD] and Title 27 California Code of Regulations, Subchapter 3. The Site 1 Landfill is located at the northern end of the former Naval Air Station Moffett Field (Moffett), located near Mountain View, California (Figure 1-1 and Figure 1-2). This report was prepared on behalf of the Base Realignment and Closure Program Management Office West. This work was conducted under Contract Task Order Number 0086, issued under Remedial Action Contract No. N68711-98-D-5713.

The purpose of this Annual Report is to present the results of groundwater monitoring and methane monitoring conducted in 2005 for the detection monitoring program at the Site 1 Landfill. It also includes a description of maintenance conducted at the Site 1 Landfill during 2005. Appendices A through F include field sampling data, analytical data, statistical evaluation, analytical data validation packages, groundwater hydrographs, groundwater monitoring point data graphs, and methane monitoring data graphs.

1.1 SITE LOCATION

Moffett is located about 1 mile south of the San Francisco Bay in Santa Clara County, California (see Figure 1-1). Moffett is bounded by United States Fish and Wildlife Service (USFWS) property to the north, Stevens Creek to the west, U.S. Highway 101 to the south, and Lockheed Martin to the east (see Figure 1-2).

The Site 1 Landfill is located in the northernmost portion of Moffett and encompasses approximately 12 acres. The Site 1 Landfill (historically referred to as the Runway Landfill) lies at the north end of the runways between North Perimeter Road, the USFWS property, and the Stormwater Retention Basin (see Figure 1-2).

1.2 2005 MONITORING AND MAINTENANCE ACTIVITIES

Monitoring activities conducted in 2005 at Site 1 included depth to groundwater measurements, groundwater sampling, and methane monitoring. Groundwater monitoring at Site 1 was conducted during 2005 in accordance with the Final Site 1 Landfill Post-Closure Long-Term Monitoring Plan (LTMP) (Tetra Tech FW, Inc. [TtFW], 2005a). The groundwater evaluation process was conducted in accordance with the Technical Memorandum, Site 1 Groundwater Evaluation Process (Tech Memo) (TtFW, 2004), which was finalized in April 2004. Maintenance activities in 2005 at Site 1 were conducted in accordance with the Final Site 1 Landfill Post-Closure Long-Term Maintenance Plan (Maintenance Plan) (TtFW, 2005b).

As approved by the regulatory agencies, the sampling frequency and analyses were modified in accordance with the Tech Memo and the LTMP. Groundwater samples were collected semiannually and analyzed for the Site 1 monitoring parameters (MPs). Methane monitoring was conducted in accordance with Section 4 of the LTMP.

Depth to groundwater measurements, groundwater sampling, and methane monitoring were conducted at the Site 1 Landfill in April and October 2005. Groundwater samples were collected from nine monitoring wells and from collection trench well W1-22. Collection trench well W1-23 could not be sampled because of insufficient water. Table 1-1 provides well construction information for all Site 1 monitoring wells. The analytical MPs include selected metals, volatile organic compounds, pesticides, and semivolatile organic compounds (SVOCs).

SVOCs and mercury sampling were conducted as supplemental groundwater sampling events in January and March 2005 because SVOCs and mercury were not analyzed historically at Site 1. Water level measurements also were taken during these supplemental sampling events.

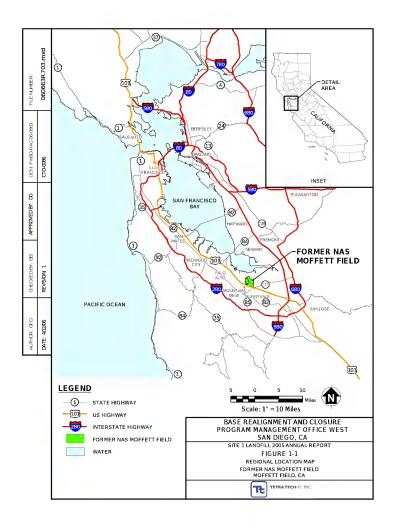
Maintenance activities were conducted at the Site 1 Landfill during 2005 in accordance with the Maintenance Plan. These activities include inspection and repair, as necessary, of the landfill cap, stormwater runoff and control measures, raptor perches, landfill gas vents, perimeter landfill gas monitoring wells, the landfill gas-venting trench and gas vents, collection trench and collection trench wells, and groundwater monitoring wells and piezometers. Site 1 inspections were conducted in Jamuary, February, May, August, and November 2005. Inspection checklists and maintenance activities are provided in Appendix G.

Santa Clara County Department of Environmental Health (DEH) also inspects the Site 1 Landfill quarterly. Neither problems nor deficiencies were noted during DEH inspections. The DEH inspection reports are provided in Appendix G.

1.3 BASIS OF DATA EVALUATION

Remedial activities at Moffett are conducted as part of the Installation Restoration Program established by the Department of Defense to identify, evaluate, and control the spread of contaminants from historical hazardous waste sites. The Site 1 Landfill is in OU1. The content of this report meets the requirements stated in the ROD (Navy, 1997) for OU1 and Title 27 California Code of Regulations, Subchapter 3.

The ROD for OU1 (Navy, 1997) summarizes site characteristics and risks, describes and evaluates the remedial alternatives, identifies the selected remedy, and identifies statutory determinations (including compliance with applicable or relevant and appropriate requirements). The major elements of the selected remedy for the Site 1 Landfill are a landfill cap, landfill gasventing trench, subsurface collection trench, groundwater and methane monitoring, institutional controls, and post-closure maintenance. Remedial actions were completed in November 1998, and methane and groundwater monitoring began in 1999.



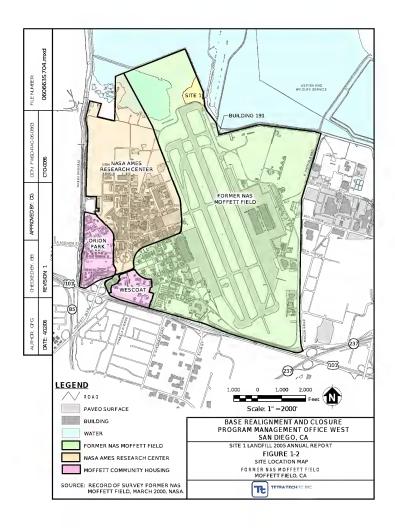


TABLE 1-1

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT WELL CONSTRUCTION INFORMATION FORMER NAS MOFFETT FIELD

Location	Northing (feet)	Easting (feet)	Diameter (inches)	ToC Elevation (feet) ¹	GS Elevations (feet) ¹	Total Well Depth (feet bgs)	Depth of Screen Interval (feet bgs)
W1-1R	1982659.6	6111220.3	4	4.83	2.21	25.5	14.3 - 24.3
W1-5	1983794.1	6110944.4	4	3.02	1.92	21.5	14.5 - 19.5
W1-6	1982637.3	6110949.3	4	-0.56	0.47	34.0	15.0 - 30.0
W1-7	1982901.0	6110315.6	4	0.24	0.04	75.0	40.0 - 70.0
W1-8	1983376.9	6111117.5	4	2.95	1.07	25.0	13.0 - 18.0
W1-12R	1983385.0	6110711.3	4	0.17	80.0	22.0	11.7 - 21.7
W1-14	1982829.9	6110399.9	2	2.46	-0.72	14.1	4.1 - 14.1
W1-15	1982790.0	6110909.9	2	2.60	-0.25	14.4	4.4 - 14.4
W1-16	1982900.5	6111204.4	2	3.82	1.35	15.4	5.4 - 15.4
W1-19	1982709.2	6110545.2	2	1.98	-0.43	19.0	14.0 - 19.0
W1-20	1982767.6	6110817.0	2	2.72	-0.11	19.0	14.0 - 19.0
W1-22 ²	1983496.9	6110774.9	8	1.12	2.10	7.0	2.5 - 7.0
W1-23 ²	1983212.8	6110510.7	8	0.83	2.18	7.0	2.5 - 7.0
W1-24	1983156.0	6111212.9	4	4.27	1.88	24.5	6.0 - 16.0
PZ1-18 ³	1982709.9	6110549.7	2	2.25	-0.29	40.0	30.0 - 40.0
PZ1-21 ³	1982770.6	6110822.3	2	2.28	-0.13	40.0	30.0 - 40.0

Notes:

Positions were determined using NASA Armes Research Center Control Monument ARC-32, a disc set flush in concrete, 6.5 feet north of northeast edge of pavement (Patrol Road) and 75 feet east of Perimeter Road, and 2.5 feet west of the chain-link fence. Northings and eastings are shown in NA D83, elevations are shown in NA VD29.

Measuring point is recorded from top of well casing.

The screen interval for replacement wells W1-1R and W1-12R are similar to those of the original wells they replaced (within 1 foot of the screen interval for the original wells).

Abbreviations and Acronyms:

bgs - below ground surface

GS - ground surface

NAD - North American Datum

NAS - Naval Air Station

NASA - National Aeronautics and Space Administration

NGVD - National Geodetic Vertical Datum

ToC - top of casing

¹ ToC referenced to survey conducted during November 2002, with the exception of W1-12R and W1-1R, which were surveyed in October 2003 and November 2004, respectively.

W1-22 and W1-23 are collection trench wells and not groundwater monitoring wells.

PZ1-18 and PZ1-21 are piezometers and not groundwater monitoring

The evaluation of Site 1 groundwater analytical results presented in this report was conducted in accordance with the Tech Memo (TtFW, 2004). The Tech Memo documented the groundwater detection monitoring program, MPs, calculated concentration limits (CCLs), and described the statistical evaluation process for the Site 1 Landfill post-closure monitoring. The MPs are a set of parameters that provide a reliable indication of a release from a landfill. The MPs include physical and analytical parameters that are a subset of the constituents of concern (CCCs). The CCLs were developed based on ecological screening criteria and site-specific attenuation factors for the groundwater. These CCLs are used as initial screening criteria in the groundwater evaluation. If analytical results are less than the CCLs, then no additional evaluation is required, and there is no release from the landfill. If CCLs are exceeded, then additional evaluation of upgradient (background) and downgradient data is conducted to determine whether there has been a release from the landfill. Appendices A and B of this document contain the field sampling data and analytical summary and CCL evaluation tables.

1.4 REPORT ORGANIZATION

This report is divided into the following sections:

- Section 1.0: Introduction, presents the site location, monitoring and maintenance
 activities, the basis of the data evaluation, and the report organization.
- Section 2.0: Groundwater Hydraulics, presents the Site 1 groundwater gradient, flow direction, and water level trends.
- Section 3.0: Groundwater Sampling, summarizes the Site 1 groundwater analytical
 data and presents the results of the evaluation of the groundwater data.
- Section 4.0: Methane Monitoring, summarizes the Site 1 methane monitoring data
 in the landfill gas monitoring wells, the landfill gas vents, and the perimeter gas
 monitoring points.
- Section 5.0: Conclusions, presents the conclusions and recommendations.
- Section 6.0: References, presents the references for this report.
- Tables and figures are incorporated into the text.
- Appendix A contains the field sampling data sheets.
- Appendix B contains a summary of the analytical tables and the CCL tables.
- Appendix C presents the Site 1 groundwater validated analytical results.
- Appendix D provides hydrographs of the Site 1 groundwater monitoring wells, piezometers, and collection trench wells.
- Appendix E provides time-series concentration graphs of monitoring points for each monitoring parameter that was detected in 2005.
- Appendix F provides time-series methane concentration graphs of the landfill gas monitoring wells and landfill gas vents.

- Appendix G provides the 2005 general site inspection reports and the 2005 Santa Clara County landfill inspection reports.
- Appendix H provides correspondence from 2005.

2.0 GROUNDWATER HYDRAULICS

This section describes the Site 1 hydrogeology, groundwater gradient and flow direction, and water level trends

The stratigraphy of the Site 1 Landfill is a complex interfingering of fine-grained units representing the boundary between alluvial and estuarine environments and fluctuations of the boundary caused by changes in sea level. Lithologic logs from shallow well borings indicate that the uppermost materials (zero to 60 feet below ground surface) are comprised of silts to silty clays, which are brown to black and moderately plastic in nature. Intermittent throughout the upper 60 feet are interfingered silty sands and clayey gravels, which are medium gray to black or brown. These materials are present as lenses or stringers and are not laterally or vertically continuous throughout the site.

Most of the groundwater elevations in the Site 1 Landfill groundwater monitoring wells are below mean sea level. The vadose zone, between the saturated zone and the land surface, consists of either imported fill material or clayer soils.

Shallow subsurface soil samples within the Site 1 Landfill and surrounding the site, taken below the landfill but above the permeable lenses within the upper portion of the shallow aquifer, were tested for porosity and permeability. The results indicate that soils below the landfill and above the shallow aquifer are generally clays with hydraulic conductivity values in the 10⁻⁸ centimeter-per-second range (appropriate for claver material [Freeze and Cherry, 1979]).

Groundwater in the upper portion of the shallow aquifer beneath the landfill generally flows north to south (Tetra Tech FW, Inc. [TtFW], 2004). The regional groundwater flow direction is south to north toward San Francisco Bay. The southward gradient underlying the Site 1 Landfill is opposite from the regional gradient because of active pumping of the Moffett storm drainage system. Pumping occurs at Building 191, located south of the Site 1 Landfill (see Figure 1-2). Building 191 began operating in the early 1950s. It consists of a subsurface concrete-lined vault, equipped with a passive pump, and receives water from nearby ditches and a French drain system underneath the runways (Tetra Tech EM, Inc., 2000). The pump station influences local groundwater gradients and reverses the local natural groundwater flow direction because the drainage system that feeds the pump station is below the water table in some areas.

Three water bodies are proximal to the Site 1 Landfill: the man-made ephemeral Stormwater Retention Basin to the north, former Jagel Slough to the southeast, and United States Fish and Wildlife Service property to the east (Figure 2-1). It appears that low-permeability barriers exist between the water bodies and the Site 1 Landfill, limiting subsurface water movement (Navy, 1997). As a result, head differences are maintained between each water body (International

Technology Corporation, 1993). Potential for flow from the landfill to the other bodies exists, but these restrictive barriers limit actual flow. Low-hydraulic conductivity, high-organic contents associated with the clays, and low-contaminant source concentrations combine to restrict flow and limit potential contaminant mirration (Navv. 1997).

2.1 GROUNDWATER GRADIENT AND FLOW DIRECTION

Field activities, conducted at the Site 1 Landfill in 2005, included four water level gauging events at monitoring wells, piezometers, and collection trench wells (Table 2-1). This section describes the collection of 2005 water level measurements and summarizes groundwater flow direction beneath the Site 1 Landfill. Figure 2-1 shows the locations for Site 1 water level measurements

Measurements of depth to groundwater were made using an electronic measuring tape with markings every hundredth of a foot. All water levels were measured within a 24-hour period. Measurements were subtracted from surveyed measuring point elevations to calculate the groundwater level elevations.

Depth-to-groundwater measurements were collected from 12 monitoring wells, 2 piezometers, and 2 collection trench wells at the Site 1 Landfill on:

- January 31, 2005
- March 7, 2005
- April 11, 2005
- October 3, 2005

Groundwater elevations for all Site 1 Landfill groundwater measurements were below sea level for 2005. The potentiometric surfaces of the upper portion of the shallow aquifer, shown on Figure 2-2 through Figure 2-5, were based on groundwater elevations in monitoring wells of similar construction and screened in the upper portion of the shallow aquifer. For example, piezometers PZ1-18 and PZ1-21 and wells W1-6 and W1-7 were not considered in the contouring because they are screened at greater depths than the other wells and are not considered representative of the groundwater elevations in the upper portion of the shallow aquifer. In addition, collection trench wells W1-22 and W1-23 were not included, as they are screened within the collection trench north of the landfill and are not considered representative of groundwater elevations.

In general, the groundwater elevations were similar to previous years. Generally, the groundwater flows from north to south at the Site 1 Landfill. The gradient from north to south (W1-5 to W1-20) was approximately:

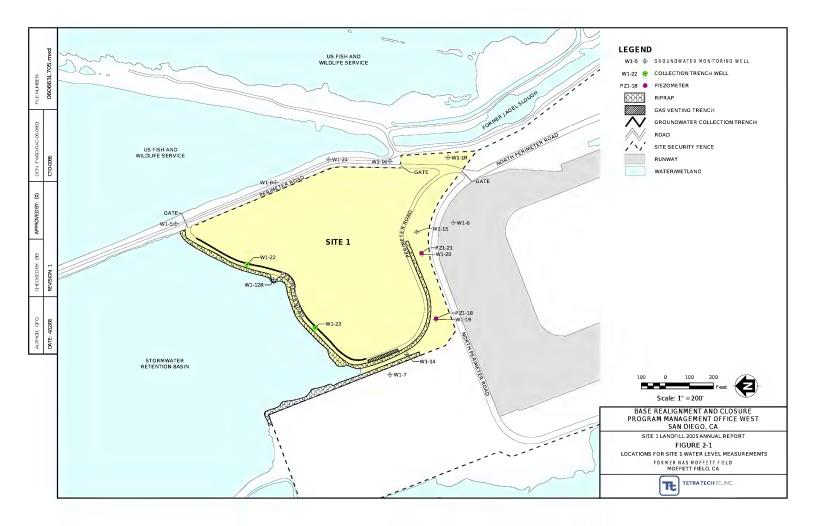


TABLE 2-1

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT 2005 GROUNDWATER ELEVATIONS FORMER NAS MOFFETT FIELD

	ToC	January 31, 2005	January 31, 2005	March 7, 2005	March 7, 2005	April 11, 2005	April 11, 2005	October 3, 2005	October 3, 2005
Location	Elevation	Depth to Water ¹	Water Elevation	Depth to Water*	Water Elevation	Depth to Water	Water Elevation	Depth to Water1	Water Elevation
	(ft msl)	(ft)	(ft msl)	(ft)	(ft msl)	(ft)	(ft msl)	(ft)	(ft msl)
W1-1R	4.83	7.77	-2.94	7.21	-2.38	7.55	-2.72	8.29	-3.46
W1-5	3.02	5.32	-2.30	4.80	-1.78	5.05	-2.03	5.68	-2.66
W1-6	-0.56	2.11	-2.67	2.21	-2.77	1.98	-2.54	2.26	-2.82
W1-7	0.24	2.98	-2.74	2.53	-2.29	2.55	-2.31	3.33	-3.09
W1-8	2.95	5.35	-2.40	4.88	-1.93	5.08	-2.13	5.76	-2.81
W1-12R	0.17	2.58	-2.41	2.02	-1.85	2.29	-2.12	3.04	-2.87
W1-14	2.46	5.21	-2.75	4.60	-2.14	4.88	-2.42	5.77	-3.31
W1-15	2.60	5.43	-2.83	4.82	-2.22	5.10	-2.50	5.90	-3.30
W1-16	3.82	7.50	-3.68	7.10	-3.28	6.69	-2.87	7.01	-3.19
W1-19	1.98	4.76	-2.78	4.18	-2.20	4.52	-2.54	5.37	-3.39
W1-20	2.72	5.57	-2.85	5.02	-2.30	5.28	-2.56	6.06	-3.34
W1-22 ²	1.12	3.45	-2.33	2.95	-1.83	2.40	-1.28	3.69	-2.57
W1-23°	0.83	5.61	-4.78	5.60	-4.77	5.48	-4.65	5.64	-4.81
W1-24	4.27	6.98	-2.71	6.38	-2.11	6.68	-2.41	7.34	-3.07
PZ1-18 ³	2.25	5.10	-2.85	5.04	-2.79	4.62	-2.37	4.74	-2.49
PZ1-21 ³	2.28	5.21	-2.93	4.56	-2.28	4.81	-2.53	5.60	-3.32

Note:

1 - Depth to water may vary from field sampling data forms (Appendix A). Data were collected on separate dates.

²-W1-22 and W1-23 are collection trench wells, not groundwater monitoring wells.

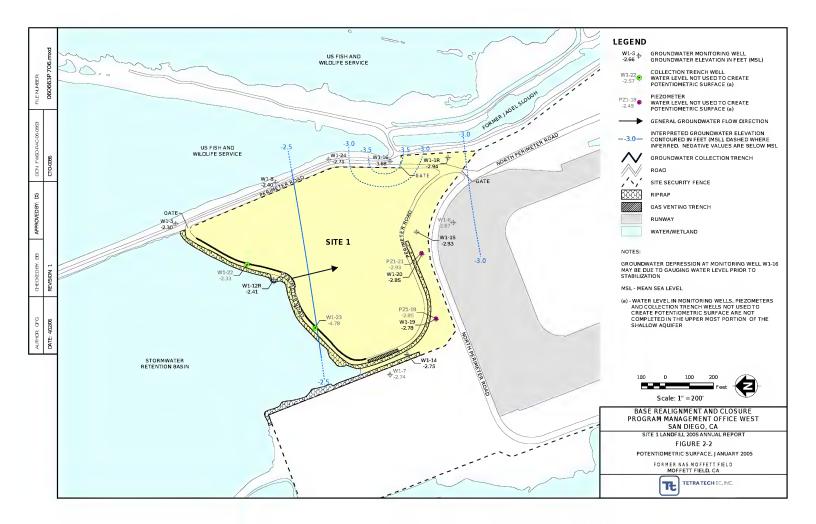
3 - PZ1-18 and PZ1-21 are piezometers, not groundwater monitoring wells.

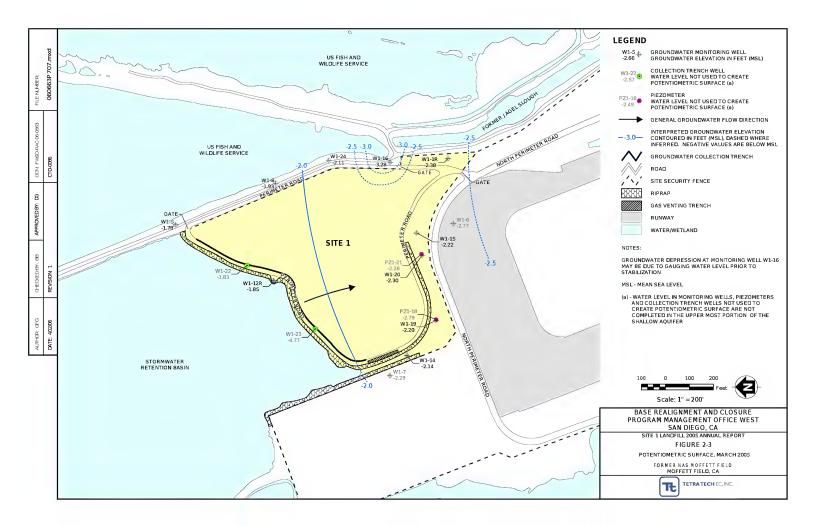
Abbreviations and Acronyms:

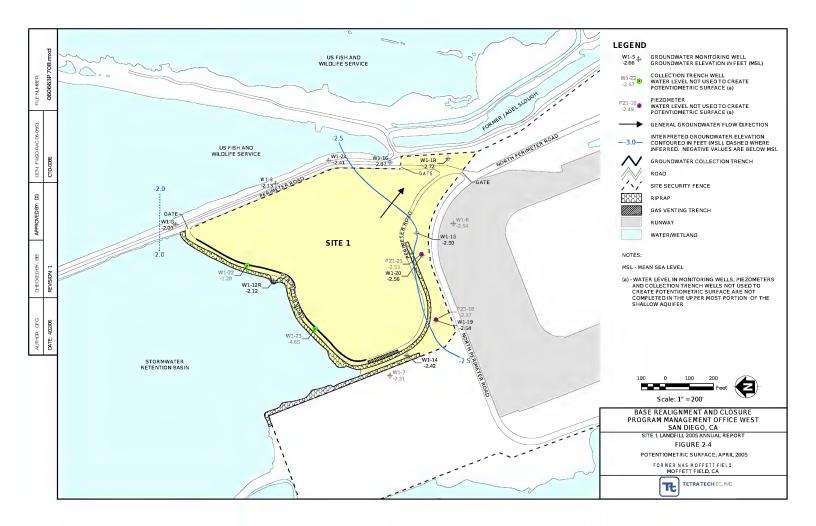
ft-feet

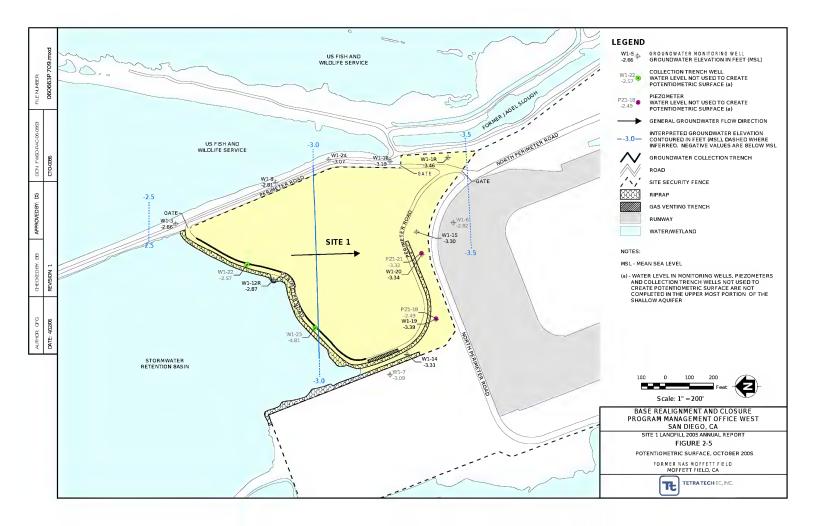
msl - mean sea level NAS - Naval Air Station

ToC - top of casing









- 0.0005 foot per foot (ft/ft) in January 2005
- 0.0005 ft/ft in March 2005
- 0.0005 ft/ft in A pril 2005
- 0.0007 ft/ft in October 2005

The water levels in monitoring well pair W1-19/PZ1-18 (see Figure D-17 in Appendix D) show upward potential since 1999 (the water levels in PZ1-18 are higher than in W1-19, and PZ1-18 is completed 11 feet deeper in the A aquifer than W1-19), with the exception of measurements collected on August 18, 2004, and January 31 and March 7, 2005. The water levels in monitoring well pair W1-20/PZ1-21 (see Figure D-18 in Appendix D) show upward potential since 1999 (the water levels in PZ1-21 are higher than in W1-20, and PZ1-21 is completed 11 feet deeper in the A aquifer than W1-20), with the exception of measurements collected on July 12, 1999, January 24, 2000, January 16, 2001, and January 31, 2005. Water levels in the W1-20/PZ1-21 pair have been generally within a couple hundredths of a foot of each other since 1999.

2.2 WATER LEVEL TRENDS

Appendix D contains groundwater hydrographs for the 12 monitoring wells and 2 piezometers at the Site 1 Landfill. Some monitoring wells and piezometers show a slight upward (W1-1/1R, W1-12/12R, W1-19, W1-20, PZ1-18, and PZ1-21) or slight downward (W1-16) long-term water level trend, while the remainder of the monitoring wells showed a flat long-term trend. All monitoring wells and piezometers show a seasonal water level variation, with a high-water level elevation near the end of the rainy season (March) and a low-water level elevation near the end of the dry season (October).

The following water level trends were observed in 2005:

- Monitoring wells had seasonal high water levels in March.
- · Monitoring wells had seasonal low water levels in October.

The seasonal water level fluctuation was on the order of 1 foot.

3.0 GROUNDWATER SAMPLING

Groundwater monitoring at Site 1 was conducted during 2005 in accordance with the Final Site 1 Landfill Post-Closure Long-Term Monitoring Plan (Tetra Tech FW, Inc. [TtFW], 2005a) and the Final Technical Memorandum, Site 1 Groundwater Evaluation Process (Tech Memo) (TtFW, 2004)

Groundwater samples were collected from nine monitoring wells, as well as from collection trench well W1-22 Collection trench well W1-23 could not be sampled because of insufficient water. Samples were analyzed for the monitoring parameters (MPs). MPs include physical and analytical parameters. The physical MPs are temperature, conductivity, dissolved oxygen, oxidation/reduction potential, pH, and turbidity. The analytical MPs were selected based on Title 27 California Code of Regulations criteria and are described below (TtFW, 2004). Locations for Site 1 groundwater and collection trench sampling are shown in Figure 3-1. Field sampling data sheets for the A pril and October 2005 groundwater sampling events are included in Appendix A.

Six supplemental groundwater sampling events were conducted in 2004 and two additional supplemental groundwater sampling events were conducted in January and March 2005 to develop the database required for the Tech Memo evaluation of dissolved mercury and the semivolatile organic compounds (SVOCs). Field sampling data sheets for the supplemental groundwater sampling events are included in Appendix A.

3.1 ANALYTICAL RESULTS

Tables B-1 through B-4 in Appendix B of this document present the analytical summary tables for semiannual and supplemental samples collected in 2005. Appendix C of this document presents the validated analytical data (provide on compact disk [CD] only). Analytical testing for 2005 was conducted in accordance with the Tech Memo (TtFW, 2004), as described in the following section.

3.1.1 A nalytical Testing

Groundwater samples collected in April and October 2005 at the Site 1 Landfill were analyzed for the following analytical MPs:

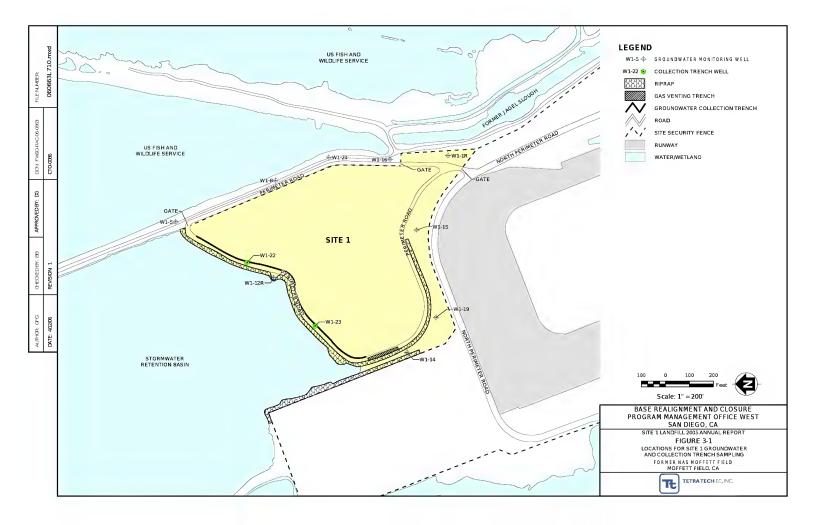
- Volatile organic compounds (VOCs) using United States Environmental Protection Agency (EPA) Method 8260B:
 - M,p-xylene
 - Trichlomethene

- Vinyl chloride
- Pesticides using EPA Method 8081A:
 - Beta-benzene hexachloride
 - Heptachlor
- Dissolved metals using EPA Method 200.8:
 - Arsenic
 - Barium
 - Cobalt
 - Copper
- SVOCs using EPA Method 8270C:
 - 2,4,6-trichlorophenol
 - 2-methylphenol

Supplemental groundwater samples collected in January and March 2005 at the Site 1 Landfill were analyzed for the following:

- · Dissolved mercury using EPA Method 7470A
- SVOCs using EPA Method 8270C

Twelve samples, including two duplicate samples, were collected from nine groundwater monitoring wells and one collection trench well at the Site 1 Landfill for each of the semiannual sampling events. Eleven samples, including one duplicate sample, were collected from nine groundwater monitoring wells and one collection trench well at the Site 1 Landfill for each of the supplemental sampling events. The analytical results from the collection trench well W1-22 are not considered representative of chemical concentrations of the shallow aguifer. The collection trench wells were not designed to monitor groundwater at the site. The collection trench wells are screened in a collection trench, located on the north side of the landfill, which was installed to protect the adjacent Stormwater Retention Basin. The collection trench wells are shallow and screened in permeable fill material placed in the collection trench. An impermeable barrier was installed on the north side of the collection trench to inhibit groundwater influence. Because of well construction relative to the collection trench and the shallow aquifer, the collection trench wells are not considered to be useful monitoring points for collecting representative samples of groundwater conditions. However, the collection trench wells are sampled at the same frequency as the monitoring wells in accordance with the Moffett Federal Airfield Final Operable Unit 1 Record of Decision (Navv. 1997) requirements.



3.1.2 Statistical Evaluation

Table 3-1 presents the MPs and the calculated concentration limits (CCLs), as detailed in the Tech Memo (TtFW, 2004). CCLs were developed based on ecological screening criteria and site-specific attenuation factors for the groundwater. These CCLs are used as initial screening criteria in the groundwater data evaluation. If analytical results are less than the CCLs, then no additional evaluation is required, and there is no release from the landfill. If CCLs are exceeded, then additional evaluation of the upgradient (background) and downgradient data is conducted to determine whether there has been a release from the landfill. If upgradient concentrations are higher than downgradient concentrations, there is no release from the landfill. Conversely, if downgradient concentrations are higher than upgradient concentrations, additional sampling events are conducted and evaluated to determine whether there has been a release from the landfill. Tables 3-2 and 3-3 present the physical MPs and MP analytes detected in groundwater samples from monitoring wells and the collection trench at Site 1 during April and October 2005 sampling events. Tables B-5 and B-6 provide the statistical evaluation summary.

3.1.3 Visual Trends

Appendix E contains groundwater monitoring point data graphs for monitoring wells with at least one detection in 2005, and a total of at least three historical detected concentrations (1999 through 2005). Groundwater monitoring point data graphs are specified in Title 27 California Code of Regulations, Section 20415(e)(14). Trends were determined by visually evaluating the graphs for increasing concentration trends, decreasing concentration trends, or relatively consistent (flat) concentration trends.

Arsenic, barium, cobalt, and copper were all detected at least once in 2005, and each dissolved metal had at least three historical detected concentrations (1999 through 2005) in samples from every Site 1 groundwater monitoring well. In general, arsenic concentrations show a decreasing trend, barium concentrations show a flat trend, cobalt concentrations show a flat to decreasing trend, and copper concentrations show a decreasing trend. All of these metals are found in seawater (Hem., 1971) and are considered part of the composition of natural groundwater at the Site 1 Landfill.

No VOCs, SVOCs, or pesticides were detected in 2005 with a total of at least three historically detected concentrations (1999 through 2005) in samples from a Site 1 groundwater monitoring well. Therefore, no other trends exist.

3.2 GROUNDWATER QUALITY EVALUATION

Results from the 2005 groundwater sampling events are tabulated in Appendix B of this document and summarized below.

3.2.1 A pril 2005 Sampling Event

During the April 2005 sampling event, the dissolved metal MPs (arsenic, barium, cobalt, and copper) and one pesticide MP (heptachlor) were detected in samples from monitoring wells at concentrations greater than their respective project reporting limits (see Table 3-2). Neither VOC nor SVOC MPs were detected in the April 2005 sampling event. The following details how barium and heptachlor exceeded their respective CCLs:

- The barium CCL was exceeded in samples from every monitoring well. However, all CCL exceedances either occurred in samples from a background well or were less than historical background values, and thus were removed from further consideration.
- Heptachlor was detected in a sample from background monitoring well W1-5. Since
 the heptachlor CCL was exceeded in a sample from a background well, it was
 removed from further consideration.

Also during the April 2005 sampling event, the dissolved metal MPs were detected in a sample from trench well W1-22 at concentrations greater than their respective project reporting limits (see Table 3-2). However, the analytical results from the collection trench well are not considered representative of chemical concentrations of the shallow acquifer (see Section 3.1.1).

3.2.2 October 2005 Sampling Event

During the October 2005 sampling event, the dissolved metal MPs (arsenic, barium, cobalt, and copper) and one pesticide MP (heptachlor) were detected in samples from monitoring wells at concentrations greater than their respective project reporting limits (see Table 3-3). No VOC or SVOC MP was detected in the October 2005 sampling event. The following details how barium exceeded its CCL:

The barium CCL was exceeded in samples from every monitoring well. Barium
occurred in samples from a background well or was below historical background
values. Thus, it was removed from further consideration.

Also during the October 2005 sampling event, the dissolved metal MPs and one pesticide MP (beta-benzene hexachloride) were detected in samples from trench well W1-22 at concentrations greater than their respective project reporting limits (see Table 3-3). However, the analytical results from the collection trench well are not considered representative of chemical concentrations of the shallow acquifer (see Section 3.1.1).

3.2.3 Supplemental Sampling Events

There were no detections of dissolved mercury or of any SVOC greater than the project reporting limit for the supplemental groundwater samples collected in January and March 2005 (see Tables B-3 and B-4 of Appendix B).

TABLE 3-1

DRAET SITE I LANDEILT 2005 ANNUAL REPORT MONITORING PARAMETERS AND CALCULATED CONCENTRATION LIMITS FORMER NAS MOFFETT FIFED

MP	MDL ^a (µg/L)	SQL ²	Calculated Concentration Limit (µg/L)
Metals			
Arsenic	0.22	1	89.64
Barium	0.18	10	40.00
Cobalt	0.2	1	230.00
Copper	0.19	1	5.15
VOCs			
m,p-X ylene	0.3	1	4.11
Trichloroethene	0.2	0.5	9.49
Vinyl chloride	0.2	1	61.95
Pesticides			
beta-BHC	0.01	0.05	340.00
Heptachlor	0.01	0.05	0.36
SVOCs			
2,4,6-Trichlorophenol	5	10	411.28
2-Methylphenol	5	10	11.31

Note

^a The MDL and SQL are based on the specific analytical methods listed in Section 4.1 of the Technical Memorandum, Site 1 Groundwater Evaluation Process (TtPW, 2004). MDLs are likely to change stightly for each analysis, as the MDL depends on both sample and instrument conditions

at the time of analysis. For those cases where the CCLs have been made equal to the MDL, the CCL may change slightly for each analysis event.

Abbreviations and Acronyms:

μg/L - micrograms per liter

BHC - benzene hexachlonde

CCL - calculated concentration limit

MP - monitoring parameter

MDL - method detection limit

NAS - Naval Air Station

SQL - sample quantitation limit

SVOC - semivolable organic compound

TtFW - Tetra Tech FW, Inc.

VOC - volatile organic compound

DRAFT SITE I LANDFILL 2005 ANNUAL REPORT APRIL 2005 DETECTED ANALYTES IN GROUNDWATER FORMER NAS MOFFETT FIELD

	86-S1-108	86-S1-109	86-\$1-110	86-S1-112	86-S1-113	86-\$1-114	86-S1-115	86-S1-116	86-S1-117	86-51-118	86-\$1-119	86-S1-120
MP	WI-1R	W1-15	W1-19	W1-14	W1-12R	W1-12R (DUP)	W1-22 ^a	W1-5	W1-8	W1-8 (DUP)	W1-24	W1-16
	4/11/05	4/11/05	4/11/05	4/11/05	4/12/05	4/12/05	4/12/05	4/12/05	4/12/05	4/12/05	4/13/05	4/13/05
Dissolved Metals (μg/L)	EPA Method	200.8										
Arsenic	0.834.J	4.61 J	2.2 J	4.54 J	1.55 J	1.63 J	2.76J	1.05 J	2.09 J	1.77 J	6.35 J	5.43 J
Banum	73.3	145J	83.8	184	743	73.4 J	208	507	130	130 J	218	244
Cobalt	135	1.91 J	9.93	6.01	4.67	6.37	4.33	1.28	2.74	2.4J	6.29	4.99
Copper	0.602 J	0.205 J	0.814J	0.225 J	0.528J	0.573 J	0.831 J	0.142J	0.329J	0.434.J	0.243 J	0.214 J
Pesticides (μg/L)	EPA Method	8081A										
Heptachlor	0.047 U	0.048 U	0.047 U	0.047 U	0.053 U	0.047 U	0.047 U	1.2	0.048 U	0.047 U	0.048 U	0.048 U
Field Measurements												
DO (mg/L)	0.09	0.04	0.05	0.1	0.14	-	0.09	0.1	0.09	-	0.15	0.11
pH	6.8	6.9	6.9	7	7.1	-	7	7.1	7.3	-	7.1	6.9
ORP (mV)	316	37	186	104	242	-	100	96	256	-	-97	-123
Temperature (°C)	22.8	24.5	22.8	21,2	13.9	-	22.6	24.1	21.8	-	16.4	186
Conductivity (µmhos/cm)	86170	60919	85611	80166	49547	-	27540	72228	76714	-	54692	60787
Turbidity (NTU)	0.75	6.4	1.3	2.9	12	-	22	5.9	1.9	-	5.8	3.2

Notes

Shading indicates concentration above the calculated concentration limit.

Abbreviations and Acromynis:

µg/L - micrograms per liter μmhos/cm - micromhos per centimeter

°C - degrees Celsius

DO - dissolved oxygen

DUP - duplicate sample

EPA - United States Environmental Protection Agency

J - estimated value

mg/L - milligrams per liter

MP - monitoring parameter mV - millivolts

NAS - Naval Air Station

NTU - nephelometric turbidity unit

ORP - oxidation/reduction potential

pH - hydrogen (ion) concentration

U - analyte not detected above project reporting limit

[&]quot; - Well W1-22 is a collection trench well not representative of groundwater at Site 1.

DRAFT SITE I LANDFILL 2005 ANNUAL REPORT OCTOBER 2005 DETECTED ANALYTES IN GROUNDWATER FORMER NAS MOFFETT FIELD

	86-S1-124	86-S1-125	86-S1-126	86-S1-128	86-S1-129	86-S1-130	86-51-131	86-S1-132	86-S1-133	86-S1-134	86-S1-135	86-S1-136
MP	WI-IR	W1-15	W1-19	W1-14	W1-12R	W1-22a	W1-5	W1-5 (DUP)	W1-8	W1-8 (DUP)	W1-24	W1-16
	10/4/05	10/4/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05
Dissolved Metals (μ g/L)	EPA Method	1200.8										
Arsenic	1.61	4.47	2.97	5.28	2.53	1.93	0.95	1.95J	3.86	4.33 J	7.25	7.72
Banum	107	176	99.9	159	72	1260	576	556 J	150	150 J	398	458
Cobalt	7.69 J	3.32J	9.69 J	8.34 J	5.25 J	0.36J	1.73 J	2.99 J	2.27J	2.28J	2.87 J	7.28 J
Copper	2.64 J	0.1 J	0.494 J	0.075 J	0.205 J	0.135 J	0.031 J	0.06J	0.099 J	0.093 J	0.14 J	0.125 J
Pesticides (μg/L)	EPA Method	18081A										
beta-BHC	0.048 U	0.048 U	0.047 U	0.047 U	0.049 U	0.25	0.05 U	0.048 U	0.048 U	0.047 U	0.05 U	0.049 U
Heptachlo:	0.048 U	0.048 U	0.047 U	0.047 U	0.02 J	0.049 U	0.05 U	0.048 U	0.048 U	0.047 U	0.05 U	0.049 U
Field Measurements												
DO (mg/L)	0.2	0.26	0.26	0.23	0.13	0.1	0.11	-	0.11	-	0.2	0.11
pH	6.5	6.7	6.6	6.7	6.5	6.3	6.5	-	6.7	-	6.5	6.5
ORP (mV)	316	-32	185	74	164	37	63	-	59		8	17
Temperature (°C)	20.6	21.2	15.6	18.3	199	23.4	23.2	-	228		20.5	21
Conductivity (µmhos/cm)	69802	64824	68499	67110	68690	43570	57874	-	60648	-	60221	64722
Turbidity (NTU)	0	6.4	1.8	2.6	21.2	15	2.6	-	8.9	-	6.3	14.1

Notes:

* - Well W1-22 is a collection trench well not representative of groundwater at Site 1.

Shading indicates concentration above the calculated concentration limit.

Abbreviations and Acronoms

- μg/L micrograms per liter
- μmhos/cm micromhos per centimeter
- °C degrees Celsius
- BHC benzene hexachloride
- DO dissolved oxygen
- DUP duplicate sample
- EPA United States Environmental Protection Agency
- I estimated value
- mg/L milligrams per liter
- MP monitoring parameter
- mV millivolts
- NAS Naval Air Station
- NTU nephelometric turbidity unit
- ORP oxidation/reduction potential
- pH hydrogen (ion) concentration
- U analyte not detected above project reporting limit

CTO No CORG

4.0 METHANE MONITORING

As part of landfill monitoring activities, methane monitoring was conducted for 19 passive gas vent (GV) wells within the Site 1 Landfill and 4 landfill gas monitoring wells (LGMW) on the perimeter of the landfill. Methane monitoring was also performed at the perimeter of the site at 150-foot intervals at 21 locations. The monitoring program was conducted in accordance with Section 4 of the Final Site 1 Landfill Post-Closure Long-Term Monitoring Plan (Tetra Tech FW, Inc., 2005a). The monitoring program was conducted in A pril and October 2005, using a Landtec GA 90 portable methane monitor. Methane monitoring locations are shown in Figure 4-1.

4.1 LANDFILL GAS MONITORING WELL AND GAS VENT RESULTS

The results of LGMW and GV monitoring are shown in Table 4-1. In general, the percentages of methane gas concentrations within the landfill were slightly lower in October 2005 than in April 2005, and are similar to historical concentrations. Methane concentrations were highest in April 2005, near the northern portion of the landfill (GV-7 at 42.3 percent), followed by a detected concentration of 36.0 percent in GV-11, which is near the center of the landfill. None of the perimeter wells (LGMW1-1 through LGMW1-4) showed concentrations of methane above the concentration limit of 5 percent (all readings were zero percent), as specified in Title 27 California Code of Regulations, Section 20921(a)(2) and as identified in the Moffett Federal Airfield Final Operable Unit 1 Record of Decision (Department of the Navy, 1997). Appendix F contains methane monitoring data graphs for the 19 GV wells and the 4 LGMWs.

4.2 PERIMETER GAS MONITORING RESULTS

Perimeter monitoring points (P-1 through P-21) are located along the perimeter fence line at approximate 150-foot intervals. Methane was not detected at any of the perimeter monitoring locations in April or October 2005.

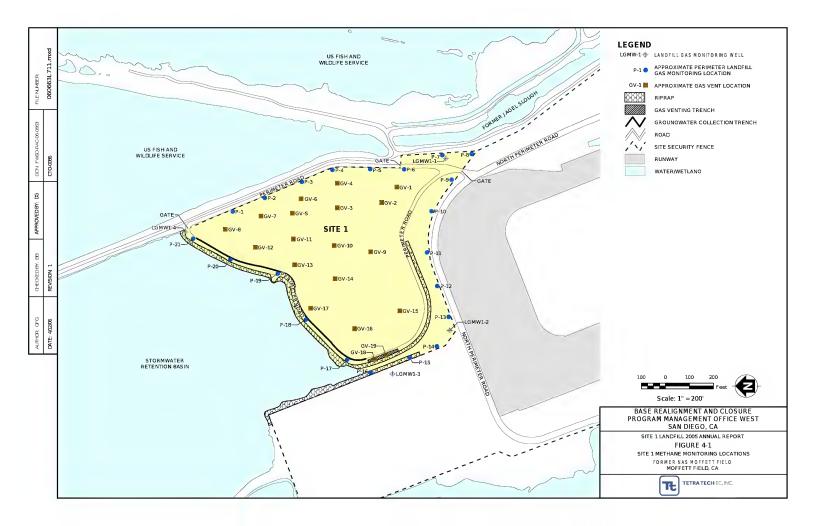


TABLE 4-1

DRAFT SITE 1 LANDFILL 2006 ANNUAL REPORT 2006 LANDFILL GAS MONITORING WELL AND GAS VENT METHANE MONITORING RESULTS FORMER NAS MOFFETT FIELD

Monitoring	Percent Methane ¹							
Location	April 18, 2005	October 7, 2005						
GV-1	0.5	0.1						
GV-2	0.0	0.0						
GV-3	0.0	0.0						
GV-4	0.0	0.0						
GV-5	0.0	4.8						
GV-6	23.0	2.6						
GV-7	42.3	38.6						
GV-8	32.1	24.8						
GV-9	0.0	0.0						
GV-10	1.4	1.0						
GV-11	36.0	3.5						
GV-12	12.9	0.0						
GV-13	0.0	0.0						
GV-14	0.0	0.0						
GV-15	0.0	0.0						
GV-16	0.0	0.0						
GV-17	0.0	0.0						
GV-18	0.0	0.0						
GV-19	0.0	0.0						
LGMW1-1	0.0	0.0						
LGMW1-2	0.0	0.0						
LGMW1-3	0.0	0.0						
LGMW1-4	0.0	0.0						

Notes:

Abbreviations and Acronyms:

GV - gas vent

LGMW - landfill gas monitoring well

NAS - Naval Air Station

 $^{^1}$ - Methane concentrations were measured using a Landtec GA 90 portable methane meter. Accuracy is $\pm\,0.3\%$ by volume at 5% concentration, and $\pm\,1.9\%$ by volume at 60% concentration.

5.0 CONCLUSIONS

Depth-to-groundwater measurements were collected from Site 1 Landfill monitoring wells, piezometers, and collection trench wells on:

- Ianuary 31, 2005
- March 7, 2005
- A pril 11, 2005
- October 3, 2005

Groundwater elevations for all Site 1 Landfill measurements were below sea level for 2005. In general, the groundwater elevations were similar to previous years. The groundwater flows from north to south at the Site 1 Landfill. The gradient from north to south was approximately:

- 0.0005 foot per foot (ft/ft) in January 2005
- 0.0005 ft/ft in March 2005
- 0.0005 ft/ft in A pril 2005
- 0.0007 ft/ft in October 2005

The following water level trends were observed in 2005:

- Monitoring wells had seasonal high water levels in March.
- Monitoring wells had seasonal low water levels in October.

The seasonal water level fluctuation was on the order of approximately 1 foot.

The water levels in monitoring well pairs W1-19/PZ1-18 and W1-20/PZ1-21 generally show upward potential since 1999.

Dissolved metal monitoring parameters (MPs) were detected at least once in 2005. Historically detected concentrations since 1999 generally show a decreasing trend for assenic, a flat trend for barium, a flat to decreasing trend for cobalt, and a decreasing for copper. All of these metals are found in seawater (Hem, 1971) and are considered part of the composition of natural groundwater at the Site 1 Landfill.

No volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), or pesticides were detected in 2005 with a total of at least three historically detected concentrations (1999 through 2005) in samples from a Site 1 groundwater monitoring well. Therefore, no other trends exist.

During the April 2005 sampling event, the dissolved metal MPs and one pesticide MP (heptachlor) were detected in samples from monitoring wells at concentrations greater than their respective project reporting limits. Only concentrations of barium and heptachlor exceeded their respective calculated concentrations limits (CCLs). Barium was removed from further consideration due to the CCL exceedances occurring in samples from a background well or exceedances were less than historical background values. Heptachlor was also removed from further consideration due the CCL exceedance occurring in a sample from a background well. Neither VOC nor SVOC MPs were detected in the April 2005 sampling event.

During the October 2005 sampling event, the dissolved metal MPs and one pesticide MP (heptachlor) were detected at concentrations greater than their respective project reporting limits. Only concentrations of barium exceeded its CCL. Barium was removed from further consideration due to the CCL exceedances occurring in samples from a background well or exceedances were less than historical background values. Neither VOC nor SVOC MPs were detected in the October 2005 sampling event.

There were no detections of dissolved mercury or of any SVOC at concentrations greater than the project reporting limit for the supplemental groundwater samples collected in January and March 2005.

Analytical results obtained throughout 2005 indicate that there has not been a release from the landfill to groundwater.

As part of landfill monitoring activities, methane monitoring was conducted at the Site 1 Landfill. In general, the percentages of methane gas concentrations within the landfill were slightly lower in October 2005 than in A pril 2005 and were similar to historical concentrations. Methane was not detected at any of the perimeter monitoring locations in A pril or October 2005. No landfill gas is migrating off site.

As part of landfill maintenance activities, the landfill is routinely inspected and repaired, as necessary. The landfill cover is intact and functional.

6.0 REFERENCES

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 ______. 2005a. Final Site 1 Landfill Post-Closure Long-Term Monitoring Plan. March 18.

 _____. 2005b. Final Site 1 Landfill Post-Closure Long-Term Maintenance Plan. March 18.

APPENDIX A FIELD SAMPLING DATA

SEMIANNUAL SAMPLING

APRIL 2005



Page1 of1	
Date04-11-05	

Trust truste					OCIDEN	iliter var	_14.5 - 24.					
	_Site 1 gw (s							TOC				Yes X
Project No1990.086E								Time7.50/0823	7;	50/0824_	7.51/0	1825
Well Loca	tion	_Site 1			Average	Water Level	(from TOC)	7.50			
Sample L	ate	04-11-05_			Reference PointTOC				PID Readings (background)0_			
Sampling Personnel Ogle					Referen	ce Elevation						
		Ram	gs_									
			. —	_				RPTD				
Sample I	D 8	6-\$1-106						19.3				
Duplicate	ID .	_		— i		o Water (w/ T			18			
							PURGING			•		
		Ţ		1							<u> </u>	
				1		Specific		A			! !	
	Discharge	Dissolved	1			Conduct		Cumulative Volume of Water	PID/OVA	Reading		
	Rate ¹	Oxygen		EWORP	Temp.		Turbidity	Removed/Purged		T	Depth to	
Time	(L/min)	(mg/L)	pН	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
2834	124	-13	6.9		21.9	87401	2.5	. 2		1000	7.57	
257	. 24	111	6.8		27.1	87428	2.4	- 5		-	7.57	
0340	.21-	. 11	6.8				2.2-	.7			7.52	
0843		-11	6.8		22.6		1.6	. 9			7.52	·····
	.24	.10	68	317	22.5		1.3		 	 	7.50	
2846			6.8		22.1		-8	1.0				
1847		1.10	6.8			7000		1-2-		 -	2.50	
252	. 4	.09			22.8			1.4			7.57	
0855	: 24	.09				86170	1.75	1.5	<u> </u>	ļ	7.57	
2853	WELL	DIAGA	17.8	0 - 0	Amp	126 SE	KUR21					
			_		┞							
				L .	<u> </u>	<u> </u>	<u></u>	<u> </u>	<u> </u>			
Notes: I Purge rat	a=0.2-0.8 L/m	inute										
	n shall be <0.33											
SAMPLE	PARAMET	ERS										
· · · · ·	/OCs	SVO	26	T PC	Bs	Pesti	cides	Dis. Metals	Dis M	ercury	T	
SAMPLE		1 040		1 10		1 000	oluco	Dio. Incluio	210.11	Cicary		
	L/min	.4L/m	in	1 41 /	min	41.6	min	.4L/min	11.0	min		
· I	L/IIII	.4011	1111	.40	Itiliti	.40	41111	.46/11/811	.40	TEILE	.	
Sample	ate for VOCs and											
Sample r	ate for non VOC	s ensiyala o pur	ge rate =	02-05Un	ninuto							
Condition	of Well. Go	od										
Remarks	: samples ef	fervesced in	voas									
	QUIPMENT											
		Hydrola	ah.		Serial I	Mumber	#R419	06	Number of	Bottles	_3X40ml, 6X1	Lamber
pH MeterHydrolab Temperature MeterHydrolab								106			y, 1X250ml po	
Turbidity Meter Lamotte											,, .,,	
					Carlet 6	Mumber	#Q.44¢	106	Field Notes			
Spec. Elec. Cond. MeterHydrolab								* Hard 140001	WUN	•		
ORP MeterHydrolab						106	Pomosla 11	sibad	Low Fle			
D.O. MeterHydrolab						06	Sample Mi	:atou	LOW FM	NI		
Inferface ProbeSolinst				Serial Number #27582 Seriel Number #00320								
PID/OVA												
Pump		Geo-Pu			Serial I	Number	BA00	11				D. C
Filter Ap	paratus	Gec45	Micro	<u>σ</u>				Pode-monators	Discharge	Water Co	ntamerized	X Yes



age_	_1	_ of _	_1_	-
Date _	_04	-11-0	5	

Well Nan	ne	W1-5			Screen Interval 14.5-19.5							
ProjectSite 1 gw (semi-annual)											Yes X No	
Project N	o1990.0	86E			Static Water Level (from TOC) / Time5.11/13255.13/13265.13/1327							
	ation				Average Water Level (from TOC) 5 12							
Sample I	Date	04-12-05						TOC				0
	Personnel											0
, ,			06			ievation						
Sample I	D 8	6-S1-11B						17.0	1 601 01 444	····		
Duplicat				1	Depth to	n Winter bul T	ubing in W		0		•••	
Барицас					Depart		PURGING	oii)	·			
				-		· ·					T	
l		ŀ		1	1	Specific	ĺ	Cumulative			1	
1	Discharge	Dissolved		1		Conduct.		Volume of Water	PID/OVA	Reading	1 1	
l	Rate ¹	Oxygen	-	EWORP	Temp.	(µmhos/cm	Turbidity	Removed/Purged			Depth to	
Time	(L/min)	(mg/L)	pН	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
1400	, 4	. 4.3	72	27.4	258	72028	8. 4	.25			5.0	
1403	٠4	,20	7 1	7.3	24.0	2/225	5.6	-5			5.1	
1406	.4	412	72	137	24.5	71686	37	.8		<u> </u>	5.1	
1409	.4	-16	7.2	(28	24.4	71644	3.6	1,55			511	
1412	. 4	110	7.7-		30.4	21288	3.7	1.3		 	5.7	
14 15	,4	.12-		10 /	14.3	72124	3.8	1.55		_	5.7	••
1418	.14	. 10	7.1	98	24.1	72128	3.3	1.8		-	5.3	
11/21	14	110	7.1			72272	5.9			 	5:3	
1424	.4	110	7.1	96		21238	5.3	2.0				
(427		1						2.3			5.3	
[42]	WELL S	TABLE	2	meri	C/Gi	-		ļ				
Notes:	L	L	L		<u> </u>	i	<u> </u>	l	L	L	L	
	o = 0.2 · 0.5 L/m o shall be <0.33											
	PARAMETI											
	/OCs	SVO	-	PC		Death		Die Metete	Dis. Mercury			
		1 5000	-8	PC	,DS	Pesti	ades	Dis. Metals	Dis. IVI	ercury	L	
SAMPLE		21.60	1-0	41.		1 41.4		41 (T	
Notes:	L/min	<u>.4</u> L/m	III)	.40	min	.4L/i	min	.4L/min	.4L/	min	L	
1. Sample i	ate for VOCs and											
2 Sample i	rate for non-VOCs	t analysis = purg	e rate =	02-05Un	thrute							
Condition	n of Well: Go	od										
	:Slight tu	rbidity throug	ghout s	ampling -	VOC sa	mples efferve	sced					
FIELDE	QUIPMENT											
	·							06			_3X40mi, 6X1	
	ture Meter				Serial N	Number	#R419	06		1X1L Pob	, 1X250ml po	ily
	Meter				Serial N	Number						
Spec. Eleo. Cond. MeterHydrolab					Serial I	Number	#R419	106	Field Notes	oook	***	
ORP Meter Hydroiab Hydroiab						Number		06				
D.O. Meter Hydrolab								Sample Me	ethod	Low Flo	WY	
Interface Probe Solinst					Serial Number #R41905 Serial Number #27582							
PID/QVA Mini-Rae					Serial Number #00320							*
								11				
	paratus								Discharge	Water Co	ntainerized	X Yes No
· wei np				·					2.25116196			1111



Page_	_1 of1	
Date	04-11-05	

Static Water Level (from TOC) / Time 5,05/1435 5,04/1436 5,05/1437	Well Name W1-8						Screen Interval 13 - 18						
Visit Visi	ProjectSite 1 gw (semi-annual)						Elevation	GND_	TOC	Immiscible	Phases Pr	esent	Yes X No
Average Water Lavel (from TOC)	Project N	o1990.0	86E										
Reference Point	Well Loca	ation	Site 1										
Reference Elevation	Sample i	Date	04-12-05										
Static Elevation Well Depth MEAS 22.78 RPTD Feel of Water	Sampling	Personnel	Ogle										
Well Depth MEAS													
Depth of Bottom of Tubing 15.50 Depth of Bottom of Tubing 15.50						Well De	oth MEAS	22.78	RPTD	Feet of Wa	ier		
Depth to Wider (w/ Tubing in Well) 5.00													
PURGING										vo			
Discharge Dissolved Rote Dissolved Rote Dissolved Rote Dissolved Rote Dissolved Rote Dissolved Rote Rote Dissolved Rote Ro	- up.iout					Depart			un)u.		ment out the second		
Discherge Discherge Refreshing Refre					· · · · · ·			UKG IIVG			-		
1	Time	Rate ¹	Oxygen	-N			Conduct. (µmhos/cm		Volume of Water Removed/Purged				Comments
CANSO										Location	value		Comments
Complete Complete											-		
Notes				-						-	<u> </u>		
1													
1													
										ļ 	-		
Note 1						******	******	1.7	1.55			5,00	
1. Purgue tels = 0.2 - 0.5 Liminute 2. Carelone fillal tels = 0.3 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.0 Liminute	1558	WELL	DIAGLE		DAME	1110	<u> </u>			ļ			
1. Purgue tels = 0.2 - 0.5 Liminute 2. Carelone fillal tels = 0.3 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.0 Liminute				<u> </u>	 	ļ	ļ	}		 		l	
1. Purgue tels = 0.2 - 0.5 Liminute 2. Carelone fillal tels = 0.3 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.0 Liminute		<u> </u>	ļ		ļ	ļ			ļ				
1. Purgue tels = 0.2 - 0.5 Liminute 2. Carelone fillal tels = 0.3 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.0 Liminute			-	L		L				L	L		
1. Purgue tels = 0.2 - 0.5 Liminute 2. Carelone fillal tels = 0.3 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.4 Liminute 2. Carelone fillal tels = 0.0 Liminute		<u> </u>			<u></u>		<u> </u>			<u> </u>			
SAMPLE RATE	Purge rai Drawdow SAMPLE	vn shall be <0.33 E PARAMET	tect ERS		L		1 5	-144	l Die Metele	I 5:- W			
1.1 1.1 1.1 1.2			SVO	:s	PC	BS	Pesti	cides	Dis. Metals	Dis. M	ercury	<u> </u>	
Notes			, ,,,,										
1 Sample and for VCCS analyses of 1 0.2 Limitade Candition of Well: Good_ Remarks: _Slight green color - Slight H2S odor, VOC samples effervesced		Umin	.4L/m	in	.4L/	min	,4L/	min	.4L/min	.4L/	min	L	
pH Meter Hydrolab Serial Number #R41906 Number of Bottlies 3X40ml, 6X1L amber, Tamperature Meter Hydrolab Serial Number #R41906 \$1X1L Poly, 1X250mi poly Turbiddy Meter Lamode Serial Number #R41906 Fleid Nofebook Spec. Else. Cond. Meter Hydrolab Serial Number #R41906 Fleid Nofebook ORP Meter Hydrolab Serial Number #R41906 Sample Method Low Flow Interface Probe Solfnet Serial Number #R27882 Serial Number #03200 Pump Geo-Pump Serial Number A60041 Serial Number #80041	Sample Sample Condition	nate for non-VOC n of Well; Go	s analysis ∓ pur kod	e rate =	0 2 · 0.5 Un		nples efferve	soed					
pH Meter Hydrolab Serial Number #R41906 Number of Bottlies 3X40ml, 6X1L amber, Tamperature Meter Hydrolab Serial Number #R41906 \$1X1L Poly, 1X250mi poly Turbiddy Meter Lamode Serial Number #R41906 Fleid Nofebook Spec. Else. Cond. Meter Hydrolab Serial Number #R41906 Fleid Nofebook ORP Meter Hydrolab Serial Number #R41906 Sample Method Low Flow Interface Probe Solfnet Serial Number #R27882 Serial Number #03200 Pump Geo-Pump Serial Number A60041 Serial Number #80041													
Temperature Meter Hydroleb Serial Number #R41908 1X1L Poly, 1X250mt poly Turbidity Meter Lamotte Serial Number #R41906 Field Notebook Spec Elec. Cond. Meter Hydrolab Serial Number #R41906 Field Notebook ORP Meter Hydrolab Serial Number #R41906 Sample Method Low Flow Interface Probe Solinet Serial Number #27/882 Serial Number #27/882 Pump Geo-Pump Serial Number BA0041 Serial Number BA0041			Hydrol	ab		Serial I	Number	#R419	006	Number of	Bottles_	_3X40ml, 6X1	L amber,
Turbidry Meter											_		.—
Spec. Elec. Cond. Meler _ Hydrolab Serial Number #R44996 Fleid Notebook ORP Meler Hydrolab Serial Number #R41996 Sample Method Do. Meter Hydrolab Serial Number #R41996 Sample Method Low Flow Interface Probe Solfnet Serial Number #Z7582 Sample Method Low Flow PUTD/OVA Mini-Ree Serial Number #00320 Pump Geo-Pump Serial Number A60041 Serial Number B60041													
ORP Meter Hydrolab Serial Number #R41906 D.O. Meter Hydrolab Serial Number #F41906 Sample Method Low Flow Interface Probe Solinst Serial Number #27/582 PUD/OVA Mini-Rae Serial Number #00320 Pump Geo-Pump Serial Number BA0041 Interface Probe Interface Probe									906	Field Note			
D.O. Meter Hydrolab Serial Number #R41905 Sample Method Low Flow Interface Probe Solinst Serial Number #27582 Pump Pump Geo-Pump Serial Number #00320 Pump Geo-Pump Serial Number BA0041 Pump Pump Geo-Pump Serial Number BA0041 Pump Pump <td colspan="4"></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td>								_					
Interface Prübe Solinst Serfal Number #27/582 PID/OVA Mini-Rae Serial Number #00320 Pump Geo-Pump Serial Number BA0041								Sample M	ethod	Low Fk	ow		
PID/OVA Mini-Rae Serial Number #00320 Pump Geo-Pump Serial Number BA0041									- w				
Pump Geo-Pump Serial Number BA0041													
						Seligi	1011001		· · · · · · · · · · · · · · · · · · ·	Discharge	Minter Co	ntainenand	X Yes N



Page	1 of1
Date	04-11-05

VICE INCIDEVVI-(ZI\						Screen Interval15-25							
	_Site 1 gw (s							TOC	Immiscible			Yes X	
Project No1990.086E					Static V	Static Water Level (from TOC) / Time229/08002.30/08012.33/0802							
	ition)	2.31				
Sample D)ate	_04-12-05_			Referen	ce Point		TOC	PID Readin	gs (backg	ound)	0	
Sampling	Personnel	Ogle									,		
		Rem	03										
					Well De	oth MEAS	25.78						
Sample II	D8	6-81-113						20					
Duplicate	D8	36-81-114				Water (w/ T			30				
							URGING						
											1		
- 1			l			Specific		Cumulative					
	Drscherge	Dissolved				Conduct		Volume of Water	PID/OVA	Reading			
i	Rate ¹	Oxygen		Eh/ORP	Temp.	(µmhos/cm	Turbidity	Removed/Purged			Depth to		
Time	(L/min)	(mg/L)	pΗ	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments	
0828	.4	-60	7.1	354	12.8	58818	38	.25			2.32		
083 i	٠4	136	7.1	326	12.8	56006	30	.50			2.34		
0834	.4	125	7.1	308	[2.8]	54424	22	.80			2.34		
1837	.4	. 23	7.1	289	13.0	54004	20	1.0			2.34		
2840	. 4	121	7.2	275	130	53440	18	1.25			2.33		
2843	. 4	.19	7. 1	26.1	13.4	57592	15	1.5			2.34		
0846	. 4	_/7	7.1	253	13.6	50669	16	1.75			2.34		
2849	.4	1/5	7.1	246	(3.8	49872	12-	2.0			2.34		
0852	, 4	1.75	7.1	244	13.9	49861	12-	2.3			2.33		
2855	.4	11.4	7.1	242	13.9	49547	12	Z.5			2.32		
3256	100 LL	STAR:	= -	SAM	DE LA								
	e≂02-05L/m											•	
	n shall be <6.33 PARAMETI												
			^	l no	no.	D		Die Metele	Dis. Mercury				
	/00s	SVO	JS .	PC	B8	Pestic	des	Dis. Metals	DIS. M	ercury		Ь.	
SAMPLE		1 11 1		1 407						,		.,	
.Ti	L/min	.4L/m	ıın	.41	min	.41/1	min -	.4∟/min	.4L/	min	L		
Sample n	ate for VOCs and ate for non-VOCs of Well: Go	s analysis = pur			moute								
Remarks	Slight tur	bidity - stight	H2S o	dor - samp	ples effe	rvesced in vo	36						
	QUIPMENT												
pH MeterHydrolab					Serial f	lumber	#R419	106	Number of	Bottles_	_3X40m1, 6X1	Lamber,	
Temperature MeterHydroleb				Serial f	lamber	#R419	06		1X1L Poly	, 1X250ml po	ły		
Turbidity MeterLemotts					lumber								
Spec. Elec. Cond. MeterHydrolab				Serial f	Number	#R419	006	Field Notel	oook				
ORP Meter Hydrolab							906						
	D.O. MeterHydrolab			Senal f	Number	#R419	006	Sample Me	thod	Low Fig	W		
Interface ProbeSolinst			Serial Number#R41905 Serial Number#27582										
PID/OVA Mini-Ree				Serial Number #00320									
					Serial NumberBA0041								
	paratus								Discharge	Water Co	nternerized	X Yes	



Page	1 of1
Date	_04-11-05

	ne	_W1-14			Screen	Interval	4.1-14.1					
ProjectSite 1 gw (semi-annual)					Station	Elevation	GND_	TOC	Immiscible	Phases P	resent	Yes X N
Project No1990.086E						Static Water Level (from TOC) / Time4.80/14554.81/14564.83/1457						
Well LocationSite 1						: Water Level	(from TOC)	4.81			
ample I	Date				Referen	ce Point			PID Readin	os (backo	round)	0
ampling	Personnel	Ogle										
		Rame	os		Static E	levation			Notes			
								RPTD				
ample l	8B	6-S1-112						9.1				
Ouplicat	ID				Depth to	Water (w/ T	ubing in W	ell)4.8	30			-
							PURGING					
	Discharge	Dissolved				Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading		
-	Rate ¹	Oxygen	١	ENORP		(umhos/cm		Removed/Purged			Depth to	
Time	(L/min)	(mg/L)	pн	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
1205	. 4	180	7.0	135	21.1	78330	9.1	,25			4.80	
1505	, <u>4</u>	.40	7.0	127	20.9	79142	6.2	-5			4.81	
508.	. €	+ 1)	7.0		21.8	79517	5.8	. 8			4.81	-
511	,42	.12	7.0	11.3	21.6	7 7335	4.6	1.0			4.80	
1514	.4	.10	7.0		21.6	79549	4.3	625			4.80	
517	. 4	.09	7.0	106	21.3	79801	3.6	1.5			4.81	
520	, 4	.09	7.0	103	21.3	79900	2.9	1.8			4.81	
1523	.4	.10	7.0	104	21.2-	80166	2.9	2.0			4.80	- 611
1526	WELL	STABAL	128	0 - SA	MPL	NG						
			L									-
		L		<u> </u>	l							
Orawdow SAMPLE	e = 0.2 · 0.5 L/min n shall be <0.33 t PARAMETE	RS										
	/OCs	SVO	CS	PC	Bs	Pestic	cides	Dis. Metals	Dis. M	ercury	l	
SAMPLE	L/min	.4L/m	in	41.7	min	.4L/r	min	.4L/min	41/		·	
otes . I	ынн	.40111		.40	111111	,4L/I	11111	.4L/IIIII	.40	111151	<u> </u>	
Sample i Condition	ate for VOCs and ate for non-VCCs n of Well: Goo	anstysis = purg	je rate =	02-05Um		in						
	:Slight turb	oany - sampl	es eff	ervesced in	1 VOSS							
	QUIPMENT											
								06			_3X40ml, 6X1	
Temperature Meter Hydrolab Turbidity Meter Lamotte						lumber		06		1X1L Pol	y, 1X250ml po	iy
	Meter											
Spec. Elec. Cond. MeterHydrolab								06	rield Notel	>00K		
ORP Meter Hydrolab Hydrolab						lumber		06				
								06	sample Me	ened	Low Fig	W
Interface ProbeSolinst PID/OVAMini-Ree						lumber		2	**************************************			
						lumber						
ump			mp		Serial f	lumber	BA004	1			at also and a sed	ы. п.



Page_	_1 of1
Date	04-11-05

	rojectSte 1 gw (semi-annual)					interval						
								TOC	Immiscible			Yes X
	o1990.0				Static V	Vater Level (fr	om TOC) /	Time \$.13/0954	5.	14/0955_	5.14/0	956
	ition				Average	Water Level	(from TOC		5.14			
Sample 0	Date	_04-11-05_			Referen	ce Point		TOC	PID Readin	gs (backg	round)	0
Sampling	Personnel _	Ogle			Referen	ce Elevation			PID Readin	g (TOC)_		0
		Ram			Static E	levation			Notes			
					Well De	pth MEAS_	17.77	RPTD	Feet of Wal	ter		
Sample !	D8	6-\$1-109_						9.4				
Duplicate	4D			1	Depth to	Water (w/ T	ubing in W	eli)5.:	10			
							PURGING					
							1					
						Specific		Cumulative				
	Discharge	Dissolved			1	Conduct.		Volume of Water	PID/OVA	Reading		
	Rate ¹	Oxygen				(µmhos/cm		Removed/Purged	1	- 00	Depth to	
Time	(L/min)	(mg/L)	рH	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
1032	.4	124	6.9	274	25.4	54072	34	-2-			5.19	
005	14	.10	1.8	79	251	35252	15	.5			5.14	
cos8	.4	.08	0.8	76	24.7	55912	7.9	. 7			5.14	
fail	.4	.06	6.8	46	24.3	5 7362	7.8	1.0	- 200		5:12	
1214	.4	.05	6.9	23	2¥.3	61921	9.3	1.3			5.10	
10:7	.4	.es	6.4	24		61912	8.1	1.5	-		5./2	
1020	.4	104	14			6/994		1.7		2017	5.12	-
1023	.44	.04	64			60311	5.9	1.4			5.12	100
1026	. 14	.04	69			60919	6.4	2.2			5.12	
1029	MELL					Secu					3.72	
1001	1,000			2012	1223	0000	100		1		-	
Votes:		-	1		-	-		-	_			_
	e = D 2 - 0.5 L/m											
	m shall be <0.33											
SAMPLE	PARAMETI	RS										
	/OCs	SVO	Cs	PC	Bs	Pestic	cides	Dis. Metals	Dis. M	ercury		
SAMPLE	RATE											
.1	L/min	.4L/m	nin	.4L/	min	.4L/i	min	.4L/min	.4L/	min		
ictes.		·				<u> </u>						
	ate for VOCs and ate for non-VOCs				simute.							
	of Well: Go				-							
	samples ef	lervesced in	voas									
	QUIPMENT											
	·							06			_3X40ml, 6X1	
Fempera:	ture Meter	Hydrok	1b		Serial I	Number	#R419	906		1X1L Poly	, 1X250ml po	oly
Turbidity	Meter	Lamotte			Serial I	Number						
Spec. Ek	ec, Cond. Me	terHydrol	ab		Serial f	Number	#R419	906	Field Notes	300k		
ORP Me	ter	Hydrok	b					906				
	ter							906	Sample Me	thod	Low Fig	w
	Probe											
	\				Serial Number #27582 Serial Number #00320					•••••		
								11				
		Geo45							Discharge	Maker Co.	atain arimori	X Yes



Page_	[ot]
Date_	4/11/05

	-											
Well Nam	e W1-	16			Screen I	interval	5.4	-15.4				7. KR.
Project_	MFH				Station Elevation GND TOC immiscible Phases Present Yes X No Statio Water Level (from TOC) / Time 6.69/0854 6.69/0854 6.69/0859							
Project No	. 1770	.086E			Static W	fater Level (fr	om TOC)	Time <u>4.49/48</u>	58_6	47/08	359 4.4	9 1 8700
Well Loca	tion Site	·/			Average	Water Level	(from TOX	c) (e.49				
Sample D	Date 4//	103			Referen	ce Point	<u>x_</u>				round) DA	45
Sampling	Personnel	D. Harri	500		Referen	ce Elevation			PID Readin	g (TOC)_	υρρώ	
					Static E	levation			Notes		'/	
					Well Do	pth MEAS _	8,25	RPTD	Feet of Wal	ler		
Sample I	D_86-0	7-12	J		Depth o	f Battom of T	ubing	10.4				
Duplicate	e ID_ <i>\M</i>	t			Depth to	Water (w/ T	ubing in W	<u>خرک _</u>	<u> </u>			
							URGING					
	Discharge	Dissolved	'		'	Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading		
	Rate ¹	Oxygen		EN/ORP	Temp.	(umhos/cm		Removed/Purged			Depth to	
Time	(L/min)	(mg/L)	pH	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water (ft)	Comments
10010	,4	0.50	7.0	-94	17.9	56134	46				6,72	
1009	.4	0.31	7.0	-106	18.0	51468	5.8	.3	ļ		6.74	
1012	.4	0.15	69	-128	18,3	58610	4.1	.5			6.75	
1015	.4	0.13	6.9	-127	18.4		3-0	1 7			6,75	
1018	T.4	0.12	6.9	-125	185		4,4_	1 1			6.77	
1021	. · · /	0.11	6.9	-123	Bla	60787	13.2	1.1.1			9/1/	
1025	Collect	Sample	1		_					-		
·		<u>'</u>	<u> </u>		-				 -			
				I	_	<u> </u>	-	·	-			
				<u> </u>					ļ.——	 		
	I		1_	L		<u> </u>	L	1	ــــــــــــــــــــــــــــــــــــــ	1		l
2. Drawdo	nd = 0.2 - 0.5 Um wn sha'l be <0 33 E PARAMET	foot										
	02.3	SVOC	5	Pu	R14	Pes	t.	D. Merc.	TO. M	eta/s	1	
	ERATE	1 100	_									
	I Ulm	- 4		1 .	d	.4		.4	14			
Notes. 1 Sample 2 Sample Condition	rate for VOCs ar	Social	2 L/manu ngo ratu :	- 02-0.5 U	minute	Ilas	alar	VDC SOUNT	5 EA	PC V99	eol.	
	(6) <u>Slight</u> EQUIPMENT			0/ 1-	s injust							
	er	Hydrol	90				R419	06	Number	ot Bottles	11	
Tempe	rature Meter	7 11			Sena	Number						
Turbidit	ty Meter	La Mal	чe_	,		Number		,				
Spec. 9	Elec Cond. N	feter <u>Hyd</u>	200	1			24190	ω	Heid No	epook		
	leler		!			l Number	-11				LOW FLO	v.)
D.O. M	leter	.,				i Number	11		Sample	method _4	-cu , cu	L32
Interfac	oe Probe					Number	00320					
PID/ON		Mini Ru				Number						
Pump.		300 pvmj			Serie	Number_	BA DE	' +	Dioch	n Motor :	Contained	Yes N
Filter A	Apparatus	Quil k A	1140	45	HALCH	<u></u>			Discharg	se annuel (CONTRACTOR DE	₽,,~~□,,



Page	_1of_1_	
Date	04-11-05	

	16					Interval					_	
	_Sita 1 gw (s				Station	Elevation	GND	TOC	Immiscible	Phases Pr	resent	Yes X N
	o1990.0				Static V	Vater Level (fi	om TQC) /	Time4.55/1255	4.	55/1256	4.55/1	257
Well Loca	tion	_Site 1			Average	Water Level	(from TOC)	4.55			
Sample [Date	_04-11-05_						TOC	PiD Readings (background)0			
Sampling	Personnel	Ogle										
		Ram	os		Static Elevation							
								RPTD	Feet of Wa	tec		
	08							16.5				
Duplicate				_				ell)4.4	10			
					Dopuito		PURGING		~			
						· · · · ·	Chomo		Γ			
						Consider					1	
	Oischarge	Dissolved	i			Specific Conduct.		Cumulative	PID/OVA	Reading		
	Rate ¹	Oxygen		EWORP	Temp.		Turbidity	Volume of Water Removed/Purged	1 15/0 1/1	- Coolaining	Depth to	
Time	(L/min)	(mg/L)	рΗ		(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
50%	. پ	.52	7.0	337	23.9	R2150	2.0	2_			4.49	
105	- 4	. 22_	7.1	325	21.3		1.5	15			9.52	
308	- 1	10	7.0	314		23506	1,1	1.8	 	 	4.51	
E11	. lej	.09	7.0	301		23036	1-4		-	-	4.51	
211	• 1	.07	7.0	204		24241	1.7	1.0	 	 	4.53	
	14		20	193		85194	1.8	(.3		-		
317	- 1,J	106		189			1.3	1.5	<u> </u>		4.50	
520	-4	05	6.7			85661		1.8	-		4.51	
:23	٠4.	.05	6.9			85878	1/3	21			4.53	
226	-4-	105	6.9			85311	1.3	2.3			4.57	
329	WELL	STABL	L	16D~	CAC	APLING	4.	ļ	ļ			
Notes:		L		L			L	L	L	Ĺ	اا	
	e = 0.2 · 0.5 L/mi	inute										
	n shall be <0.93											
SAMPLE	PARAMETI	ERS										
	/OCs	svo	36	PC	Bs	Pesti	cides	Dis. Metals	Dis M	ercurv	T	T
SAMPLE			-	1		1	osu ou	Dio. Micialo	1 0:0. 10	orour y	·	
	L/min	.4L/m	in	1 417	min	111	min	.4L/min	41.6	min	T	
otes	L/11001	.400	111	1	131111		111111	1 .42/1107	, .40	114161	L	
	ate for VOCs and											
. Sample o	ate for non-VOC	s analysis = purg	e rate =	02-05 L/m	elune							
Condition	of Well: Go	cd										
Remarks	: samples ef	fervesced in	voas									
FIELD E	QUIPMENT											
		Hydrola	ıbdı		Serial I	lumber_	#R419	806	Number of	Bottles	_3X40ml, 6X1	L amber,
	ture Meter							906			, 1X250mi po	
	Meter					Number					., ,-	
	ec. Cond. Me							906	Field Note:	nook		
	ter							906	. 1444 1444			
	er							906	Sample M	ethod	Low Flo	
	Probe							2	oumpie wi		LOW FIX	·"
								0				
	,							41				
					Seliai I	Anuroet	BAUC	*1				X Yes I
Filter Ap	paratus	Geo45	Micro	n					Discharge	water Co.	ntainerized	X[Yes] [



Page1 of1
Date04-11-05

Well NameW1-22	Screen	Screen IntervalNA						
ProjectSite 1 gw (semi-annual)					Immiscible Phases Present Yes X No			
Project No1990.086E	Static V	Vater Level (fr	rom TOC) /	Time2.40/0925	52.40/09262.40/0927			
Well LocationSite 1	Average	Water Level	(from TOC)	2.40			
Sample Date 04-12-05	Referen	ce Point						0
Sampling Personnel Ogle								
Ramos								
	Well De	pth MEAS_	670 F					
Sample ID86-S1-115				6				
Duplicate ID	Depth t	Water (w/ T	ubing in W	ell)2.4	100			
			PURGING					
		Specific		Gumulative				
Discharge Dissolved	1	Conduct.		Volume of Water	PID/OVA	Reading		
Rate Oxygen Eh/O		(jumhos/cm	, who want	Removed/Purged			Depth to	
Time (L/min) (mg/L) pH (m		at °C)	(NTU)	(Gallons)	Location	Value	Water2 (ft)	Comments
0940 14 .63 6.7 11		33458	15.0	.25			2.36	
0943 .4 .20 6.9 10		32128	4.3	.5			2.38	
0946 .4 .16 6.9 10		31463	2.7	.8			2.40	
0949 .4 .15 69 10		30401	2.2	1.0			2.39	
0952 .4 .13 7.0 10		28303	2.2	1.3			2.41	
0955 .7 .12 7.0 10	7 22.3	27592	2.20	1.5			2.40	
0958 14 111 7.0 10		27468	2.2-	1.8			2.39	
	2 22.6	27441	2.3	2.1			2.41	
1004 14 .09 7.0 10	1 22.6	27374	2.3	2.3			2.40	
1007 .4 .09 7.0 10		27540	2.2	2.5			2-41	
1010 WELL STABLE - San	arding							
Notes: 1. Purge rate = 0.2 - 0.5 L/minute 2. Drawdown shall be <0.93 toot								
SAMPLE PARAMETERS								
VOCs SVOCs	PCBs	Pestio	cides	Dis. Metals	Dis M	ercury		T
SAMPLE RATE		1	0,400	Dio Hotalo	J.0. 11.	cicui	L	
	4L/min	.40	min	.4L/min	.4L/	min	r	Т .
Notes:								
1 Semple rate for VOCs analysis = 0.1 - 0.2 Liminute 2. Semple rate for non-VOCs analysis = purge rate = 6.2 - 0.	5 Umaute							
Condition of Well: Good								
Remarks:								
FIELD EQUIPMENT								
pH MeterHydrolab	Serial I	lumber	#R419	06	Number of	Bottles	_3X40ml, 6X1	i. amber,
Temperature MaterHydrolab	Senal h	Number	#R419	06		1X1L Poly	, 1X250ml po	ly
Turbidity MeterLamotte	Serial I	vumber						
Spec. Elec. Cond. Meter Hydrolab				06	Field Notel	oook		
ORP MeterHydrolab	Serial I	Number	#R419	06				
D.O. Meter Hydrolab				06	Sample Me	sthod	Low Flo	w
Interface Probe Solinst				2				
PID/OVAMini-Rae				0				
PumpGeo-Pump			BA004	1				X Yes No



Page .	of/
Date _	4/11/05

Well Nam	ie Wi	24		$-\overline{}$	Screen 1	nterval	6-10				-	
Project	1990.10					Ti as continuo	GND	TOC	Immiscible I	hases, P	resent	Yes No
	. MFA				Static W	fater Level (fi	om TOC)	Time <u>.6.48/0</u>	854 6	-48/08	55 64	8/0855
Well Loca	tion <u>Site</u>	[Average	Water Level	(from TO	0.68				
Sample D	Date UII	3/05			Referen	ce Point	70C		PID Reading	gs (backg	round) _Qa	<u> </u>
Sampling	Personnel_	S. Harris	or-		Referen	ce Elevation			PID Readin	(TOC)	Upper	
					Static E	evation			Notes	_	- /	
•					Well De	ptin MEAS2	0.75	RPTO	Feet of Wat	er		
Sample I	D 86	31-11	?			f Bottom of T			58			
Duplicate	eID NA				Depth to	Water (w/ T	ubing in V	lell)	20			
			_		_	F	URGING					
	Discharge	Dissolved				Specific Conduct.		Cumulative Volume of Water	PIDIOVA	Reading		
Time	Rate ¹ (L/min)	Oxygen (mg/L)	ρН	Eh/ORP (mV)	(°C)	(µmhos/cm at °C)	(NTU)	Removed/Purged (Gallons)	Location	Value	Depth to Water ² (ft)	Comments
0850	,4 UM	0.64	7.2	-51.	15.8	52296	4.9	1.	ļ		6.69	
0853	,4	0.31	7.2	- 77_	15.9	53916	53	,3		ļ	6.71	
0856	.4	0.17_	7.2	-94	16.0		46				6.72	
0859	:4	0.14	7.2	-95	16.2		4.2	, 7			6.72	
0902	-4	0.15	7.1	-97	16.4	54692	5.8	. 9		-	1. 15	
0905	Collect	Sample	٠	<u> </u>	<u> </u>				 		 	h
	<u> </u>	<u> </u>	-	 	-				1			
			-		 		 		1		1	
		 	+-	 	┼~~	-	1					
	+		_	_		-					l	L
2 Drawdon SAMPL	ne = 0.2 - 0.5 Um vm shall be <0.33 E PARAMET	fsot ERS		10 "	ñ. n	ra n.	.7	Vx D. Melal	5[/× J).	Merc		
34		12x S	10C15	124	ዮረያነኝ	21 Pe	\$	1/ X 0.146131	51/ ¥ . J./	INEVE.		
	ERATE	T .C			IJ	1 .4		-41	1 . 1	$\overline{}$	7	
Notes: 1, Sample 2 Sample	rate for VOCs an rate for non-VOC	allysis = 0.5 - 0 : io prailysis = pui	ge rate	te = 0.2 - 0.5 U	minute		· . 1/0/	Sumples s	o (Fo Spec)	ed.		
			10 /	Sign	17.05	J Dave.	* ***	2.34.14,11.2				-
pH Met	ter <u> -\</u> rature Meter	<u>4 drolab</u>				Number	R419	06-	Number of	of Bottles		
Turbidi	ty Meter	, Wolfe	_			Number						
Spec. I	Elec. Cond. M	teter Hyr	100/4	b		Number	2419	<u> </u>	Field Not	ebook		
	Meter	''	`			Number	- 11				0.) FI O	(L
	leter					Number	11	ka	Sample I	Method _	مر، دره	
Interfac	os Probe	Sdin	<t_< td=""><td></td><td></td><td>I Number</td><td>2758</td><td></td><td></td><td></td><td></td><td></td></t_<>			I Number	2758					
	VAW					I Number	BAOO					
Pump.	(500)	1. J. C.	6.11	ar 4	Sena 5 Mi	Number	01100	7.).	Dischare	e Water	Containenzed	Yes
Filter A	pparatus	EXUICK	F: 14			CACA!						

OCTOBER 2005



TETRATECH FW, INC. LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

age	_1_ of _1_	
ate	10/3/05	

Well Nan	neW1-1F	₹			Screen	Interval	14.3-2	4.3			_		
Project_	CTO 86-Site	1. Semi-An	nual		Station Elevation GND TOC Immiscible Phases Present Yes X No								
Project N	o. <u>1990.0</u>	86E			Static V	Static Water Level (from TOC) / Time 8.29 / 1409 8.29 / 1409 8.29 / 1409							
Well Loca	ation Moffett	- Site 1			Average	Water Lavel	(from TOC	8.29					
Sample	Date 10	4/05			Referen	nce Point	oc		PID Readin	gs (backg	round) <u>U</u> AA		
	Personnel		QN		Referen	ce Elevation			PID Readin	g (TOC)	Dopm		
		B.Oale				levation			Notes		11		
			******				7.27	RPTD	Feet of Wa	ter			
Sample	ID 86-S1-12	4				f Bottom of T							
	e iD N/A				Depth f	o Water (w/ T	ubing in W	(ell) 8:29					
H					<u> </u>		URGING						
		Γ	_		Ι		CITCHIO		Ι				
	Discharge	Dissolved				Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading	Depth to		
Time	Rate¹ (L/min)	Oxygen (mg/L)	рH	Eh/ORP (mV)	Temp.	(µmhos/cm at °C)	Turbidity (NTU)	Removed/Purged (Gations)	Location	Value	Water ² (ft)	Comments	
1430	.4	0.96	6.4	449	20.7	76/80	0.7	*/			8.31		
1433	1./	0.73	6.5	382	38.8	70136_	0.5	, 3			8,33		
1436	.4	0.69	65	347	20.9	70082	0	.5			8.35		
1439	-4	0.24	6,5	320	20.7	69973	18	7			8.36		
1442-	.4	0.22	6.5	3/8	20.7	69943	Ø	.9			8.34		
1445	.4	0.20	6.5		20,6	68802	.00	1.1			8,37		
1448	Glect	Sounde	-										
	GE/IEC7	127											
2. Drawdov	te = 02 - 05 L/m vn shell be < 033	foot											
	OCS	svoc		PE	ĎТ	PCI	26	D.MERC	D.ME	TALS			
SAMPLE		3000	-	J - FE	01.			D.M.L.NO	, ,,,,,	17120	٠		
	144	1 .4			7	.u		-4	. 4			T	
Notes	1914	1							· · · · · · ·				
2. Sample Condition	rate for VOCs en rate for non-VOC n of Well: Gd	a enalysis = puņ ⊶t — nee	o rate :	02-051/		: eHerse	Scarl						
	QUIPMENT	- M.F F. L. Z.	¥										
pH Mete		HYDROLAE	2		Seriel	Number #	R41334		Number of	Bottles	3X40mLV		
	ture Meter_						R41334				4X1LA		
Turbuity	Meter	HYDRO	LAB			Number L					IXLP		
	ec. Cond. Me						R41334				1X250mLP		
	ster H						R41334		Field Notel	ook Pa	-910		
	ter H					Number #				. 7	1 '		
	Probe SC					Number#			Sample Method Low Flow				
	A MI						00320						
Pump	GI	EO-PUMP					A0041						
Filter Ac	paratus	EO- 45 MIC	RON	- D.	Metal	54 D.M	er.		Discharge	Water Co	ntainerized	X Yes No	



TETRATECH FW.INC LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

age	_1_	of_	1	
ate	10/3	/05		

Well Nar	ne W1-5				Screen	Interval	14.5-1	19.5					
Project_	CTO 86-Site	1. Semi-An	nuat		Station Elevation OND TOC Immiscible Phases Present Static Water Level (from TOC) / Time 5.49 / 1509 5.49 / 1509 5.49 / 1509								
Project N	lo. <u>1990 0</u>	86E			Static V	Vater Level (fi	om TOC)	Time 5.49/1	504 Su	19/150	1 5,6	1303	
Well Loc	ation Maffett	- Site 1						5,69		•			
Sample	Date 10 6	05							PID Readin	gs (backg	round) DP	0~	
Sampling	Personnel	D. HARRIS	ÓN						PID Readings (background) Dop ~				
		B.Ogle		_		levation			Notes		11		
							1.30	RPTD					
Sample	ID 86-S1-13	1				f Bottom of T							
Duplicat	e ID86-S1	-132			Depth t	o Water (w/ T	ubing in W	(all) <u>5,68</u>					
							PURGING						
				1									
		i	1			Specific		Cumulative					
	Discharge	Dissolved			_	Conduct		Volume of Water	PID/OVA	Reading	A		
_	Rete ¹	Oxygen	1	EWORP	Temp.	(µmhos/cm	Turbidity	Removed/Purged	l		Depth to		
Time	(L/min)	(mg/L)	pН	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments	
1225		0.51	6.5	93	23.3	57870	11.4				5.67		
1228	<u> </u>	0.40	6.5	82	23.3	59563	9.6	1,3	ļ <u> </u>		5.10		
123 (1 47	0.13	6.5	67	23.3	28321	7-1	-5			5.71		
1234	- 4	0-12	4.5	65	23,2	58018	4,5	.1			5.72		
1237	.4	0-11	6.5	63	23.2	57874	2.4	, 9			5,73		
1240	Collect	Sample	┺										
			_										
			_										
			-										
Notes:	L	<u> </u>		Ь.	1	<u> </u>	l	L		<u> </u>			
	te = 0.2 - 0.5 L/m	inute											
2. Drawdov	vn shall be <0.33	foot											
SAMPLE	PARAMETI	RS											
1	/ocs	SVOC	S	PE	ST.	PCI	38	D.MERC	D.ME	TALS			
SAMPLE	RATE	4		•									
		,4			4	, .		.4	.4				
Notes:					-								
	rate for VOCs and rate for non-VOCs				nimute								
	n of Well: G		-										
Condition	n or vveir:	-1 1	1.15	0.00		VAC C	. 1.	efferres					
Remarks	: Chew 1	2119-1-1	F/3	12 00	10/	100	ample	Streinex	εα.				
	QUIPMENT												
	٠,						R41334		Number of	Bottles			
	iture Meter						R41334				4X1LA		
	Meter						MOTTE				1X250mLP		
	ec. Cond. Me						R41334			. 0.		4.5	
	terH						R41334		Field Notes	юк га	<u> </u>	0 2	
	ter <u>HY</u>						R41334			the death	Chan		
	ProbeSQ						25582		Sample Me	inod <u>Lov</u>	V FIOW		
	4 <u>Mir</u>						00320						
	GE					vumberB	A0041		District	M-4 C	-4-1	X Yes No	
Either An	naratis G		PON	- 11			EVT.		LUSCDATOR	uvater Col	ntainerized		



TETRATECH PW.INC. LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

age	_1_of	_1
\ata	10/3/05	

Well Nan	ne <u>W1-8</u>				Screen	Interval	13-18				_		
Project _	CTO 86-Site	1, Semi-An	nual		Station Elevation GND TOC Immiscible Phases Present Yes No Static Water Level (from TOC) Time 1/50 5/16 1/50 1/50 5/16 1/50 1								
Project N	o. 1990.0	66E			Static V	Vater Level (fi	om TOC)	Time 5.76/15	D7 5,	76/15	08 5.76	1509	
Well Loca	ation Moffett	- Site 1			Average	Water Level	(from TOC	35,76					
Sample I	Date iclb	05			Referer	ce PointT	oc .		PID Readin	gs (backg	عم∆ (round		
Sampling	Personnel	D. HARRIS	ON .		Reference Elevation				PID Readings (background)				
	_	B,Ogle			Static F	levation			Notes		11		
					Well De	oth MEAS	2.47	RPTD	Feet of Wal	ter			
Sample	D_88-S1-13	3				f Bettom of T							
	e ID <u>86-</u> \$1				Depth t	o Water (w/ T	ubing in W	elt) 5.76					
Dapiton													
		,					PURGING						
	Discharge	Dissolved				Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading			
	Rate ¹	Oxygen		Eh/ORP		(µmhos/cm		Removed/Purged		Value	Depth to	Comments	
Time	(L/min)	(mg/L)	pH	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments	
1345	.4	0.87	6.7	43	23,5	60504	8.6	- !			5.78		
1348	4	0.14	6.7	61	28.1	60753	8.4	3			5.79		
1351	4	0.12	4.7		13.0		9.3	15			5.81		
1354	- 1	9.11	6.7	59	22,8	60648	8.9	.1			5.83		
1375	Collect	Souple	ļ	_							2		
1405	Collect	Field L	10/10	\$1º	1					ļ			
		L	'		ļ					1			
			<u> </u>						ļ				
			<u> </u>				ļ				<u> </u>		
			L		<u> </u>								
	<u> </u>	<u> </u>		<u></u>	L	l		L		└			
2. Drawdov	to = 0.2 - 0.5 L/m on shall be <0.33 PARAMETI	foot											
	/OCS	svoc	S	PE	ST.	PC	BS	D.MERC	D.ME	TALS			
SAMPLE		1	_										
CALSTI E	1	14		1	ī ·			.4	179				
2 Sample :	rate for VOCs and rate for non-VOC	s analysis = pur	ge rate :	02-05U	ninute								
	QUIPMENT	inma: 11			0-4-11		D41004	1	Number of	Bottles	6X40mLV		
	·					Vumber#			Manufact of	Doittes_	8X1LA		
	sture Meter					Number # Number L					2XLP		
	Meter					_					2X250mLP		
	ec. Cond. Me					Number# Number #			Field Note	book Pa	5. 1021	103	
	ter <u>H</u>								r iciu Notes	~~~ <u>14</u>	102		
	ter H)					Number#			Sample M	ethod I ~	w Flow		
Interface Probe SQLINST PID/OVA MINI-RAE					Serial Number #25582 Serial Number #00320				Sample Method Low Flow				
							A0041			-			
Pump_		EO-PUMP							Discharge	Mater Co	ntainerized	X Yes No	
Fitter Ap	paratus <u>G</u>	EO-45 MIC	KON	- W.	Mela	5 + D. A	arve		Discharge	AAGIGI CO	MONTH OF THE	ᄪᄤᆔᄤ	



TETRATECH FW.INC LOW-FLOW GROUNDWATER SAMPI ING DATA SHEET SAMPLING DATA SHEET

Page	_1of1	_
Deta	10/3/05	

	_												
Well Nan	ne W1-12	R			Screen	interval	15-25						
Project	CTO 86-Site	1. Semi-An	nual		Station Elevation GND TOC Immiscible Phases Present Yes X No								
Project N					Static V	Vater Level (fr	om TOC)	Time 3.09/14	123,	04/140	13 30	4/1944	
	ation Moffett	- Site 1			Average	Water Level	(from TOC	3.4V		•			
	Date /0/4								PID Readin	gs (backe	round) 0.04	w	
	Personnel_		ON						PID Readings (background) 0/00-				
- mapang		B.Ogle	3.0.	_		levation			Notes		-1		
		D.Ogic		_		pth MEAS 2		PTD		ler			
0	ID 86-S1-12					f Bottom of T			1 660 01 914				
						o Water (w/T							
Duplicat	e ID N/A				Depth to	o water (w/ i	ubing in w	en) <u>3.07</u>					
			,			F	URGING						
i													
				Ì		Specific		Cumulative					
	Discharge	Dissolved	i		l_ :	Conduct.		Volume of Water	PID/OVA	Reading			
	Rate ¹	Oxygen	l	ENORP		(µmhos/cm	Turbidity	Removed/Purged			Depth to		
Time	(L/min)	(mg/L)	pН	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments	
1025	.4	0.55	6. b	160	19.8	68703	31.8				3.05		
1028	.4	0.38	6.6	160	19.8	68780	30.2	. 3			3.06		
1031	.4	0.20	6.6		17.8	68671	25.4	.5			3.06		
1. 34.	.4	0.15	6.5	163	19.9	68685	22.7	.1		<u> </u>	3.04		
1057	.4	0.14	6.5	1/63	19.9	68687	21.8	, 9	<u> </u>		3.06		
1040	+4	0.13	6.5	164	19.9	68690	21.2	1./			3.06		
1041	Collast	SquiNe.			1								
-	T							I		Ε.	li		
				1				1					
Notes:	-			•									
	te = 0.2 - 0.5 L/m an shall be <0.33												
	E PARAMET					PCI	20	D.MERC	D.ME	TALS	T	т	
	vocs	SVOC	.s	PE	ST.	PCI	38	D.MERC	D.ME	IALO			
SAMPLI		y				1 ,	7-				Т		
Notes	•/	.4		<u> </u>	4	, ,					L		
	rate for VOCs an	alvais = 0.1 - 0.2	2 L/minus	*									
	rate for non-VOC				ninute								
Conditio	n of Well.	resect											
	s: Touchtel	1 Strong	L. H	25 N	lov-								
		1-2,220	0										
	CUIPMENT									n.w	3X40mLV		
pH Mete		HYDROLA				and the same			Number of	Rottlea	4X1LA		
	ature Meter						R41334				IXLP		
	Meter						aMOTTE.				1XLP 1X250mLP		
	lec. Cond. Mo						R41334			P.			
ORP M	eter <u>H</u>	YDROLAB					R41334		Field Note	роок_ <u>Г</u>	FIND.		
D.O. Me	eter <u>H</u>	YDROLAB.					R41334				-		
Interface	ProbeSC	LINST					25582		Sample M	ethod <u>Los</u>	N FlOW		
PID/OV	AM	NI-RAE					00320						
Pump_		EO-PUMP					A0041						
Fitter Ap	paratus G	SEO45 MIC	RON	- 0	. Met	12 + 0,	Merc.		Discharge	Water Co	ntainerized	X Yes No	



age.	_1_ of _	1
)ate	10/3/05	

Well Nan	ne W1-14				Screen	interval	4.1-14	.1					
Project_	CTO 86-Site	1, Semi-An	nual		Station Elevation GND TOC fmmiscible Phases Present Yes X No								
Project N	o. 1990.0	86E			Static V	Vater Level (fi	rom TOC)	Time 5.77/143					
Well Loca	ation Moffett	- Site 1			Average	: Water Level	(from TOC	5.77					
Sample I	Date	105							PID Readings (beckground) Officer				
Sampling	Personnel	D. HARRIS	ON										
		B.Ogle	-			levation			Notes	• • • • • • • • • • • • • • • • • • • •			
					Well De	oth MEAS	7.68	RPTD	Feet of Wa	ter			
Sample I	D 86-S1-12	8				f Bottom of T							
Duplicat	eID MS/M	SD			Depth t	o Water (w/ T	ubing in W	ell) <u>5.77</u>					
							PURGING						
	Discharge	Dissolved				Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading			
Time	Rate¹ (L/min)	Oxygen (mg/L)	ρH	Eh/ORP (mV)	Temp. (°C)	(µmhos/cm et °C)	Turbidity (NTU)	Removed/Purged (Gallons)	Location	Value	Depth to Water ² (ft)	Comm	ienis
0825	0.4	0.61	6.8	29/	18.3	63798	11.2	. 2-			5.75		
8828	.4	0.43	6.8	171	18.3	64378	9.4	.4			5.81		
0331	.4	0.25	6.7	82	18.3	64930	9.1	- 6			5.81		
0834	4	0.21	6.1	77	183	67002	3.6	- 8			5 7, 83		
0831	14	6.23	6.7	74	18.3	67110	2.10	1.0			5.84		
08%	Collect	Saple			L								
										L			
<u> </u>			<u> </u>	<u> </u>									
			<u> </u>	<u> </u>		<u> </u>							
							<u> </u>						
Notes:	L	1	_	L		L	L		L			-	
	e = 0.2 - 0.5 L/m m shall be <0.33												
	PARAMETI	****											
	rocs	svoc	s	PE:	ST.	PCI	3S	D.MERC	D.ME	TALS	L		
SAMPLE		1 11				- 4	,	ι τ	· · · · ·	,			
Notes:	1 you			1 .		· · · /		L: /	<u> </u>	<u> </u>	L		
	ate for VOCs and												
	ate for non-VOC		ge rate =	0 2 - 0.5 Uz	ninute								
Condition	of Weli: _C	rocul						77					—
Remarks	: Chew	/slight	713	S c4	- 1	VDC SO	umples	efferseec	L				
	QUIPMENT												
	·						R41334		Number of	Bottles	9X40mLV		
	ture Meter_						R41334				12X1LA XLP		
	Meter						MOTTE_				3X250mLP		
	ec. Cond. Me		OLAB				R41334		Field Notel	nat Ha			
	ter H						R41334		LING NOTES	~~~~~ 6 -1-3			—
	terH)					lumber #	25582		Sample Me	thod 1 ~	v Flow		
	Probe <u>SO</u>			-			00320		Octubio inic				
	GE						A0041						
Filter An	noretue C	EO. 45 MIC	RON	- h.		5+1 M			Discharge	Water Co	ntainerized	X Yes	□No



TETRATECH FW, INC LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

Page 1 of t

Date 10/3/05

Weli Nar	ne W1-15	5			Screen	Interval	4.4-14	1.4				
Project_	CTO 86-Site	1, Semi-Ar	nual		Station Elevation GND TOC Immiscible Phases Present Yes X No							
Project N	o. 1990.0	86E			Static V	Vater Level (f	rom TOC)	Time 5,98/198	3 57	90/140	4 5,9	11405
Well Loca	ation Moffett	- Site 1				e Water Level						
Sample I	Date 10	4/05							PID Readin	as (backa	round) 0/	104
Sampling	Personnel	D. HARRIS	ON						PID Readin	a (TOC)	000	1
	_	V				levation			Notes	g (100)	off.	
								RPTD	Feet of Wa			
Sample I	D 86-S1-12	5				f Bottom of T						
1 '	eID N/A			- 1	Donth (o Water (w/ T	hing in 10	5-20				
Барлова					Depuii			en/				
<u> </u>							PURGING					
	Discharge	Dissolved				Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading		
	Rate ¹	Oxygen	l	ENORP			- aranany	Removed/Purged			Depth to	
Time	(L/min)	(mg/L)	pH	(mV)	(°C)	at °C)	(NTU)	(Galions)	Location	Value	Water ² (ft)	Comments
i535	.4	0.44	45	-19	21.8	54440	22.8				5.93	
1538	.4	0.40	6.6	- 21	21.7	56739	13.7	~ 4			5.95	
1541	14	0.29	6.4	- 30	21.5		9.0	. 6			5,94	
1544	.4	0,27	6.7	- 31	21.4		7-2	18			5,97	
1547	.4	0.26	6.7	-32	21.2	64824	6,4	1-0			5,98	
155D	Collect	Sauve	<u> </u>									
		,,			×							
			L									
						;						
	e = 02 - 05 L/mi n shall be <0 33											
SAMDI F	PARAMETE	:00										
	ocs	svoc		PES	ът.	PCI	30	D.MERC	D.ME	FALD		
SAMPLE		3000		, rec	» į.			D.MERC	D.ME	MLO	<u> </u>	
	144	3.0	,		7	.4		. /	14			
Notes:	1 -/-				1	1 . 4			7		L	
2. Sample n	ate for VOCs and ate for non-VOCs	analysis = pur			ninute							
Condition	of Well: 6	1.1.1		+C0.c	C	les effe	1.106	 				
Kemarks	CHECK	Indovie to		YUC	Same	NES CARS	VVVXZI	<u> </u>				
FIELD E	QUIPMENT											
					Serial N	lumber#	341334		Number of	Bottles	3X40mLV	
	ture Meter				Serial N	lumber#	741334				4X1LA	
Turbidity	Meter	HYDRO	A8		Serial N	lumber <u>La</u>	MOTTE			1	XLP	
	c. Cond. Mel					lumber#					1X250mLP	
ORP Mel	er <u>HY</u>	DROLAB_			Serial N	lumber#	R41334		Field Noteb	∞k	. 46 t 97	
D.O. Met	er <u>HY</u>	DROLAB			Serial N	lumber#	741334					
	ProbeSOI				Serial N	lumber#;	25582		Sample Me	thod <u>Low</u>	Flow	
PID/OVA	MIN	II-RAÉ			Serial Number #00320							
Pump	GE	O-PUMP				lumberB						
Fitter App	aratus <u>G</u>	EO45 MIC	RON -	- 0.1	Me tal	5 + D. M	pre,		Discharge 1	Nater Cor	tainerized	X Yes No



age	1_	_ of _	_1_	-
ate_	10/3	/05_		

Well Narr	ne W1-16				Screen	interval	5.4-15	i.4				_	_
roject	CTO 86-Site	1, Semi-An	nual		Station	Elevation	GND	TOC	Immiscible			Yes 🗴	J№
roject N	n. 1990,0	86E.			Static V	Vater Level (tr	om TOC)	Time 7.31/15)	7 70	1/1518	7.01	1518	_
	tion Moffett					Water Level							
	ate o/				Referen	ce Point I	oc .				round) <u>0</u> 0/	· 4	
	Personnel		ON		Reference Elevation				PID Reading (TOC) Oppur				
		B.Ogle				levation			Notes		14		
				_	Well De	oth MEAS /	8,24 1	RPTD					
ample I	D 88-\$1-13	8		\equiv		f Bottom of T							
-	ID N/A			_	Depth to	o Water (w/ T	ubing in W	/ell) 7.6 I					
					<u> </u>		PURGING						_
					Γ.								
	Discharge	Dissolved				Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading			
	Rate ¹	Oxygen		ENORP	Temp.		Turbidity	Removed/Purged			Depth to		
Time	(Umin)	(mg/L)	pН	(mV)	(°C)_	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comme	nts
1545	,4	10.58	6.6	39	22.3	63084	28	. 2			7.03		_
1548	.4	0.24	6.6	24	22.0	63446	22.6	- 4			7.09		_
1551	.4	0.13	6.5	20	22,6	64327	16	16			7.05		_
1554	.7	0.12	6.6	18	22.3		145	.8	<u> </u>		7.07		_
1557	,9	0.11	6,5	17	210	641722	19.1	10			7.09		_
1600	Collect	Samo	10						ļ		 -		_
		, ,	_										_
				ļ									
		<u> </u>	Ь		<u> </u>		ļ <u> </u>			ļ			
			$oldsymbol{ol}}}}}}}}}}}}}}}}}$		ļ	<u> </u>	L						
		<u> </u>	Ц.	l	<u> </u>		L	L	l	1			
Drawdow	n = 02 - 05 L/m m shell be < 033 PARAMET	foot											
	ocs.	svoc	S	PE	ST.	PC	BS	D.MERC	D.ME	TALS			
AMPLE	RATE	6								,			
	. /	14			4			14	1				_
. Sample I	nate for VOCs and nate for non-VOC n of Well:	is analysis = pur	ge rate :	0.2 · 0.5 L/s		r - V0	C 501	uples es	Geves	rd			
FIELD E	QUIPMENT						R41334	•	Number of		3X40mLV		
	f						R41334		, control of		4X1LA		
	iture Meter Meter						aMOTTE				1XLP		_
	ec. Cond. Me						R41334				1X250mLP		_
							R41334		Field Note	book _ /	2:104		_
	ter H						R41334				,		_
							25582		Sample M	ethod Lo	w Flow		
	Probe_SC						00320						
							3A0041						_
rump_		CO-PUMP				+ N. Me			Discharge	Water Co	ontainerized	X Yes	П



age	_1_ of _1	
ate	10/3/05	

												
Well Na	me <u>W1-19</u>)			Screen	interval	14-19					
Project_	CTO 86-Site	1. Semi-An	nual		Station Elevation GND TOC Immiscible Phases Present Static Water Level (from TOC) / Time 5.37/1428 5.37/1429 5.37/1429							
Project N	lo. <u>1990.0</u>	86E			Static V	Vater Level (fi	rom TOC)	Time 5, 37/14	28 <u>5</u> ,	37/14	29 5	7/1430
Well Loc	ation Moffett	- Site 1			Average	e Water Level	(from TO	537				
Sample	Date 166	0 5			Referer	nce Point_T	oc		PID Readin	gs (backg	round) 🖓 🕰	
Sampling	Personnel_	D HARRIS	ON		Referen	nce Elevation			PID Readin	g (TOC)	Oppu-"	
		M.RAMOS			Static E	levation			Notes		(1)	
					Well De	pth MEAS	428	RPTD	Feet of Wa	ter		
Sample	ID 86-\$1-12	6			Depth o	Bottom of T	ubing <u>16</u>	3.5				
Duplicat	te ID_ <u>N/A</u>				Depth t	o Water (w/ T	ubing in W	rell) <u>5.57</u>				
				,		,	PURGING					
	Discharge	Dissolved				Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading	Depth to	
Time	Rate¹ (⊔/min)	Oxygen (mg/L)	pH ·	Eh/ORP (mV)	Temp.	(µmhos/cm at °C)	Turbidity (NTU)	Removed/Purged (Gallons)	Location	Value	Water ² (ft)	Comments
0725	.4	0.87		410	13.2		4.4	•/			5.38	
0728	-4	2.28			14.0	69527	3.2	, 3			5138	
0781	.4	0.27	6.6		15.2		2.1	.5			5,40	
0734		0.26			15.4	68499	1.8	27			5.41	
0736		Squal		1.0=	-	V 1, /.	7					
			L									
				i					<u> </u>		L	
2. Drawdou	to = 0.2 - 0.5 L/mi nm shall be <0.33 E PARAMETI	foot										
	/ocs	Svoc	s	PE	ST.	PCI	35	D.MERC	D.ME	TALS	r	
SAMPL												
	: 1 c/w	.4			4	1.9		- 4	• 4			
2. Sample Condition	rate for VOCs and rate for non-VOCs n of Well:	analysis = pur	e rate =	02-05L/n		los eff	er vecer	<i>1.</i>				
FIELDE	QUIPMENT				,							
	r					lumber#			Number of	Bottles	3X40mLV	
	iture Meter					łumber#					4X1LA	
	Meter					lumberL				1	XLP 1X250mLP	
	ec, Cond, Mel					iumber#		 	Field Marris	nale Pa	-953	
	ter HY						R41334		Field Notel	xxx 18	125	
	ter HY						R41334		Sample Me	thod Lau	, Elou	
	Probe SO					lumber#			оаттрие Ме	uiou <u>Lov</u>	I FOW	
	4 <u></u>					lumber <u>#</u> lumber B						
rump_	GE	O-PUMP				+ 9.W			Discharge	Mater Co.	ntsinerized	X Yes N



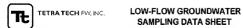
age	_1_	of_	1
Date	10/3	05	

Well Nan	ne <u>W1-22</u>				Screen	Interval	N/A					
	CTO 86-Site	1, Semi-An	nual			Elevation		TOC	Immiscible	Phases Pi	resent]Yes [] No 9/1450
Project N	lo. 1990.0	66E			Static V	Vater Level (fr	om TOC)	Time 3.49/14	48 3	69/14.	99 36	9/1450
Well Loca	ation Moffett	- Site 1				Water Level						
Sample 1	Date 10/	105				ce Point I		/	PID Readin	igs (backg	round) Dog)·
	Personnel		ÖÑ			ce Elevation			PID Readin			
		B.Oale				levation			Notes		-11	
						pth MEAS	75	RPTD	Feet of Wa	her		
Sample	D 86-\$1-13	n			Donth o	f Dattom of T	uhina					
Duplicat	_				Donth f	n Water (u/ T	ubina in M	(ell) 3,69				
Dupiton	<u> </u>				Бериге			G.O				
							URGING	,				
	Discharge					Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading		
	Rate ¹	Dissolved Oxygen		ENORP	Temp.	(µmhos/cm	Turbidity	Removed/Purged	1 1010 111		Depth to	
Time	(L/min)	(mg/L)	pΗ	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
1120	40	6.34	6.3	61	23,9	46217	320	, 2-			3,72	
1/23	14	1.38	6.3	61 53	23.8	45727	176	U	l		3.12	
	4	0 38	6,5	48	23.6	45831	118	1.6		 	3.73	
1129	- 7	0.21	1 2	45		45264	83	. 8			3.13	
1132	.4	0.01	6.3	40	23.4	44827	45	1.0			3.74	
	1.7	10.16	6.3	40	23.4	44014	18	1.2			3.74	
1135	.4	0.12	6.3	57	23.1	43862	14	1.4			2.14	
1140	1.4	0.10	7.2	37	23.4	43570	13	1,6			3.75	
			2,7	3/	7,00	13210	1,5	7.4 0			5.00	
1145	Collect	Samp	و		_							
<u> </u>			├						-			
Notes		J	1	1	<u> </u>	1	Ь					
1 Purge rai	te = 0 2 ⋅ 0.5 Um											
2. Drawdov	vn shell be <0.33	foct										
SAMPLE	PARAMET	ERS										
١	/ocs	SVOC	s	PE	ST.	PCE	38	D.MERC	D.ME	TALS	<u> </u>	
SAMPLE	ERATE									,		
		٠, ٢		,	4			,4	, ,	<u>{</u>	L	
Notes:	rate for VOCs and		l desired	_								
2. Sample	rate for non-VOC	s analysis = pur	ge rate =	0.2 - 0.6 L/n	nieute							
	n of Well:	. 1										
	s: Todo d	101,00	4 1	125 0	1./							
Nemarks	100000	-1-2147	4	100	10							
FIELD E	QUIPMENT											
pH Mete	r	HYDROLA	3		Serial I		R41334		Number of	Bolties		
Tempera	ature Meter_	HYDROLA	B				R41334				4X1LA	
	Meter						MOTTE			1	XLP	
	ec. Cond. Me		OLAB				R41334				1X250mLP	0.1
ORP Me	terH	YDROLAB_					R41334		Field Note	book_1 2	S 100+1	UI
	ter <u>H</u>						R41334			<u> </u>		
	ProbeSO						25582		Sample M	ethod _Loy	V FIOW	
	AM					***************************************	00320					
Pump_		O-PUMP					A0041				A. L. Labour	
Filter Ap	paratusG	EQ-,45 MIC	RON	- 0.n	<u>Metals</u>	+ D. Mer			Discharge	Water Co	ntainenzed	X Yes N



age	_1_	_ of _	1_	
Date _	10/3	/05		

Well Nan	neW1-23				Screen	Interval	n/a					
Project_	CTO 86-Site	1, Semi-An	nual		Station	Elevation	GND	TOCTOCTime_ <u>5,64/14:</u>	Immiscible :	Phases Pi	resent	_Yes k No
Project N	01990.0	B6E			Static V	Vater Level (fo	om TOC)	Time 5.64/14:	38 50	64/143	9 5.69	1/1440_
Well Loca	ation _Moffett-	Site 1			Average	Water Level	(from TOC					
Sample E	Date				Referer	ce PointT	oc		PID Readin	gs (backg	round) _Opp	1m
Sampling	Personnel	D. HARRIS	ON .			ce Elevation			PID Readin	g (TOC)	Opport	
		B.Ogle			Static E	levation			Notes		77	
					Well De	on MFAS	5.94 1	RPTD 6.0				
Sample I	D 86-S1-12	7				f Bottom of T						
	D N/A			- 1				'ell) 5.64/				
Duplicac	10 _10/				Depuir			GII				
							PURGING	,				
ı				l								
.			1			Specific		Cumulative	DID (A) (I	A		
	Discharge	Dissolved				Conduct.		Volume of Water	PID/OVA	Reading	Depth to	1
	Rate ¹	Oxygen		Et/ORP		(µmhos/cm	Turbidity	Removed/Purged			Water ² (ft)	Comments
Time	(L/min)	(mg/L)	pH	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value		Comments
0950	.5	202	7.3	406	25.1	84561	1200 +	1			5.72	
0953	٠,3	1,78	7.3	309	23.4	83322	1400 T	12			5.76	
0954	Trech	ran	dN	1	l	L						
			<i> 1</i>	·								
										L		
				$\overline{}$	1							
			\vdash		†							
			 -		 							
Notes:		<u> </u>	Ь.		J		<u> </u>	L				
	e ≈ 0.2 - 0.5 L/mi											
2. Drawdow	n shall be <0.33	loot										
SAMPLE	PARAMETE	RS										
١	ocs.	SVOC	s	PE	ST.	PCI	BS	D.MERC	D.ME	TALS	<u> </u>	
SAMPLE	RATE	4 -										
		_		Ι .		-			_			
Notes		,						· · · · · · · · · · · · · · · · · · ·				
1, Şample r	ate for VOGs are ate for non-VOCs	lysis = 0.1 · 0.2	: L/minut	n 2.0510	our i de							
			go iaus -	02-030	111111111111111111111111111111111111111							
	of Well: _G											
Remarks	Turbid	1 Stone	MA.	salor								
EIEI D E	QUIPMENT	1										
		HADBUL VI	3		Sariot I	Number #	R41334		Number of	Bottles	3X40mLV	
							R41334				4X1LA	
	ture Meter						aMOTTE				IXLP	
	Meter										1X250mLP	
	ec. Cond. Me					Number #			Field Notel	not A	-29	
	terH)					Number #			Lieid Motet	<u>F</u>	F	
	erHY					Number#			Cample M	Wad In	. Class	
	ProbeSO					Number #			Sample Me	ttiod _rov	W F 19W	
	MI						00320					
	GE				Serial	NumberB	A0041					DIV. DIV
Filter Ap	paratus <u>G</u>	EO45 MIC	RON						Discharge	Water Co	ntainerized	X Yes No

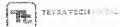


age .	_1_	_ ot _	1
ate	10/3	/05	

Well Nan	neW1-24	1			Screen	Interval	6-16					
Project_	CTO 86-Site	1. Semi-An	nual		Station	Elevation	GND	TOC	Immiscible	Phases P	resent	Yes No
Project N	lo. 1990.0	86E							13 7.3	4/151		
Well Loc	ation Moffett	- Site 1				Water Level						
Sample		14/05				ice Point T		·	PID Readin	os (hacko	round) A.A.	A (:
	Personnel		ON								Oppile	
oundanie.		B.Ogle	<u></u>			levation_			Notes	\$ (100) <u>.</u>	P	
		a ogie		_			0.06	RPTD				
									reet or was	rer		
1 .	ID_86-S1-13			-	Depth	f Boltom of T	ubing11	- 2.1				
Duplicat	e ID <u>N/A</u>				Depth t	o Water (w/ T	ubing in W	eli) <u>7.34</u>				
							PURGING					
						Specific		Cumulative				
	Discharge	Dissolved	l		l_	Conduct.		Volume of Water	PID/OVA	Reading		
	Rate ¹	Oxygen	١	Eh/ORP			Turbidity	Removed/Purged		١	Depth to	
Time	(Umin)	(mg/L)	pН	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
1500	-4	0.99	6,6	30	21.8	51541	12				7.36	
1503	.4.	0.23	6.6	10	21.4	59674	9.7	4			2.37	
1506	,4	0,21	4-5	9	20.7	59945	8.2	, ψ			7.39	
1509	.4	0.20	65	8	20.5	60221	4.3	.8			7.40	
1510	Collect	Sounde										
					T							
				· · · · · · ·								
_												
Notes:		L	-					<u>'</u>		·		
	te = 0.2 - 0.5 L/m vn shall be <0.33											
	PARAMETI			·					,			1
\	/OCS	svoc	S	PE:	ST.	PCI	38	D.MERC	D.ME	TALS	<u> </u>	
SAMPLE	RATE	15										
·	1	٠4		100	1	.4		.4		<i>!</i>		
Notes.												
	rate for VOCs and rate for non-VOC:				ninute							
		~ 1										
Condition	n of Well:	100 q	410	1	· ·	1000	.)	effervosced				
Remarks	LIVER	Sugar	710	> 6000	/	10C 301	mp145	CTACA ON SCHOOL				
FIELDE	QUIPMENT											
pH Meter	r	HYDROLAE	3		Serial I	lumber #	R41334		Number of	Bottles	3X40mLV	
	ture Meter				Serial f	lumber#	R41334				4X1LA	
	Meter					lumber				1	XLP	
	ec. Cond. Me					lumber #					1X250mLP	
	ter H					lumber #			Field Notel	xxx Pa	5 103 t	100
	ter HY						R41334			- O		
	Probe SO					lumber #			Sample Me	thed Lov	Flow	
	MII						00320					
Pump		O-PUMP					A0041					
Filter Ap		EQ-45 MIC	RON.	-7.		5 4 0.			Discharge	Water Co	ntainerized	X Yes No
r mean Ap	hauamo	PACCES MIC				· · · · · · · · · · · · · · · · · · ·	,					

SUPPLEMENTAL SAMPLING DATA

JANUARY 2005



age	11
)ate	_January 31, 2005_

O MARIO WINDOW	(T.)											
eli Nam	eW1-1F				Screen	nterval	14.3 -	24.3				
roject	CTO 86 Site	1 R7/05							Immiscible I			Yes X N
roject No	1990	. 086E			Static W	ater Level (fre	om TOC) /	Yime_7.75/1201			7.75/120	3
eli Locat	ionSite 1				Average	Water Level	(from TOC)		_7.77			
ample D	ate Ja	nuary 31, 20	005		Referen	ce Point	T(OC	PID Reading	gs (backgı	ound)	0
	Personnel				Referen	ce Elevation _			PID Reading	_ (TOC) g	0	
	_	Ramos							Notes			
					Well De	oth MEAS 2	7.45 RI	PTD	Feet of Wat	er		
ample II)	86-51-	084					19.3				
uplicate		NA			Depth to	Water (w/ T	ubing in we	19.3				
			_									
					_		URGING					,
ł												
i					1 1	Specific		Cumulative	PID/OVA	Panding	1 1	
	Discharge	Dissolved			-	Conduct.		Volume of Water	PIDIOVA	Reading	Depth to	
1	Rate 1	Oxygen	!	EMORP		(µmhos/cm		Removed/Purged (Gallons)	Location	Value	Water ² (ft)	Comments
Time	(L/min)	(mg/L)	pH	(mV)	(°C)	at °C)	(NTU) 1.2	0.25	Location	Value	Truica (it)	COMMISSION
1455	0.4	0.21	6.6			66500 67305	1.4	0.25				
1458	0.4	0.11	6.6					0.75			 	
1501	0.4	0.11	6.6			67109	1					
1504	0.4	0.11	6.6		-	66940	0.98	1				
1507	0.4	0.1	6.6		-	66372	0.97	1.3				
1510	0.4	0.09	6.6		_	66130	0.95	1.5				
1513	0.4	0.09	6.6	242	20.8	66136	0.95	1.8				
1516	0.4	0.09	6.6	243	20.7	66160	0.9					
1519	0.4	0.09	6.6	242	20.6	66161			+	ļ		
1522	0.4	0.09	6,6	242	20.6	66180	0.88	2.6			ļ <u>.</u>	
1525	Well stabaliz	ed - began s	amplir	1	Ь				<u> </u>	<u> </u>	Ь	
lotes.	e≃02-05Um											
	m shall be <0.33											
AMDIS	PARAMETE	-RS										
	SVOCs	TTX DIS.	Wer.	Т				T				
	RATE											
	0.4	0.4		T				T	I		1	
Votes												
Sample :	rate for VOCs and rate for non-VOC	alysis ≃ 0 1 - 0 2 s analysis = pur	oe rate 4	me ≖02-051/	minute							
						Good						
Remarks	of Well:	Still r	need to	paint								
	QUIPMENT											
	COLLEGE	Hwdroleb			Serial	Number		_3656	Number o	f Bottles_	2 X 1LA	
	rture Meter							3656			250ml poly	
								3656				
	Meler				Opiral Pekas	Mumber		3656	Field Note	book 6	سی.	
	lec. Cond. Me				Cerial	Mumbar		3656				
	eterHyd							3656	Samnia M	lethori	Low Flo	w
	terHy					Number		25582	Garripte IV			
	Probe					Number		00320				
		Mini-Rae			Sena	MUMBER		00020				
	Ge					Number						



Page	1of1_
Date	January 31, 2005_

-												
Vell Nam	eW1-5_							- 19.5			-	
roject	CTO 86 Site	1 R7/05			Station E	Elevation	GND_	TOC			esent	
roject No	1990	. 086E			Static W	ater Level (fro	m TOC)/	Time _5.32/1242		1242	5.32/124	2
/ell Loca	tionSite 1				Average	Water Level	(trom TOC)		5.32			
ample D	ateF	bruary 2, 20	05		Reference	ce Point	T<	oc	PID Reading	gs (backgr	ound)	0
ampling	Personnel	Ogle			Reference	ce Elevation _			PID Reading	_ (TOC) _	0_	
		Ramos_										
					Well De	pth MEAS	19.30	RPTD	Feet of Wat	er		
ample II	D	86-S1	-092_		Depth of	f Bottom of Tu	ıbing	17				
uplicate	ID	NA			Depth to	Water (w/ Tu	abıng in wel	i)5.3				
							URGING			-		
						·	1					
- 1						Specific	1	Cumulative				
- 1	Discharge	Discolved				Conduct.		Volume of Water	PID/OVA	Reading		
- 1	Rate ¹	Oxygen		EWORP	Temp.	(µmhos/cm	Turbidity	Removed/Purged			Depth to	
Time	(L/min)	(mg/L)	рН	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
1345	0.4	0.54	7	294	20.63	58250	1.3	0.25		L		
1348	0.4	0.14	7	293	20.04	57034	0.9	0.5		L		
1351	0.4	0.09	7	291	19.94	57043	0.8	0.75				
1354	0.4	0.08	. 7	282	19.51	57940	0.6	1	ļ			
1357	0.4	0.07	7	258	19.85	57716	0.2	1,3				
1400	0.4	0.06	7	266	19.98	57700	0.2	1.6				
1403	0.4	0.05	7	261	19 89	57688	0.2	1.8				
1406	0.4	0.06	7	263	19 93	57739	0.2	2	<u> </u>			
									ļ			
									<u> </u>	<u> </u>	ļ	
415 sta			L			L	<u> </u>	<u> </u>	<u> </u>	L	<u> </u>	L
	te = 0.2 - 0.5 L/mi vn shall be <0.35											
	PARAMETI											
	SVOCs	1 X Dis.	Mer.					J			ــــــــــــــــــــــــــــــــــــــ	
AMPLE						,			1		T	
Johns.	0.4	0.4						1			<u> </u>	
1. Sample 2. Sample Condition	rate for VOCs and rate for non-VOC in of Well;	s analysis = pur	ge rate :	0.2 - 0.5 L/r		Good						
	s:											
	QUIPMENT							2052	Manakara	I Politor	2X1LA	
	r							_3656			250mi p oly	
	ature Meter							3656		, ×	Zoum poly	
	Meter							_3656	Field Note		70	
	lec, Cond. Me							_3656	ried Note	BOOK	•	
	eterHyd					Number		3656	Comple M	lathod	Low Flo	eu/
	eterH							3656	Sauthie M		EOW FIL	
	e Probe							25582				
	Α							00320				
Pump_	Ge	p-Pump			Serial	Number	в	A0041	Discharge	a Mater C	ontainerized	X Yes



Page	_1_	_ of	_1_
Date _J	anua	ry 31, 2	005_

									-			
leli Namo	e W1-8				Screen I	nlerval	13 -	18				
	CTO 86 Site	1 87/05							Immiscible i	Phases Pa	esent [Yes X N
	1996							Time 5.35/1244				
/ell Locat		J. 000L							5.35			~
	ate F		105								round)	0
	Personnel		,uJ								0_	
		Ramos										
_		Namus_						RPTD	Fool of West			
ample IC		86-S1-	000					15.5	reet of wat			
ampie it. uplicate		00-51-	-093									
apricate	<u> </u>	IVA			Depth to	vyater (w/ 1	nonig in we	i)5.35				
						F	URGING					
- 1						Specific		Cumulative			l i	
- 1	Discharge	Dissolved				Conduct.		Volume of Water	PID/OVA	Reading	1 1	
i	Rate ¹	Oxygen		EMORP	Temp.	(µmhas/cm		Removed/Purged			Depth to	
Time	(L/min)	(mg/L)	pН	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Commants
1425	0.4	0.23	7.4	295	23.32	39612		0.25		ļ	\vdash	
1428	0.4	0.15	7.4	293	23.67	39304	1.4	0.5		ļ	1	
1431	0.4	0.1	7.4	291	23.94	38481	1.4	0.75				
1434	0.4	0.09	7.4	288	24.05	36986	1.3					
1437	0.4	0.08	7.4	278	23.59	36691	1.3	1.3				
1440	0.4	0.08	7.4	281	23 66	36559	1.3	1.6				
	0.4	0.09	7.3	278	23 59	36534	1.3	1.8				
14431												
1443	0.4	80,0	7.3	277	23.58	36500	1.2	2				
	0.4	80.0	7.3 7.3	277 280		36500 36498	-					
1446 1449		0.09		280	23.59			2.25				
1446	0.4	0.09	7.3	280	23.59	36498	1.2	2.25				
1446 1449 1452 500 star	0,4 0.4	0.09	7.3	280	23.59	36498	1.2	2.25				
1446 1449 1452 500 star cles	0.4 0.4 == 92-05 L/mi	0.09 0.09	7.3	280	23.59	36498	1.2	2.25				
1446 1449 1452 500 star oles Puige rate Drawdown	0.4 0.4 == 82 - 0.5 L/min n shall be <0.33	0.09 0.09	7.3	280	23.59	36498	1.2	2.25				
1446 1449 1452 500 star bles Purge rate Drawdown	0.4 0.4 = 92-05 L/mi n shell be <0.33	0.09 0.09	7.3	280 279	23.59	36498	1.2	2.25				
1446 1449 1452 500 star cless Purge rate Drawdown SAMPLE 2 X	0.4 0.4 == 92-05 Um n shall be <0.33 PARAMETE SVOCs	0.09 0.09	7.3	280 279	23.59	36498	1.2	2.25				
1446 1449 1452 500 star cles: Purge rate Drawdown AMPLE 2 X	0.4 0.4 = 92-05 U/m n shall be <033 PARAMETE SVOCS	0.09 0.09 Indee look	7.3	280 279	23.59	36498	1.2	2.25				
1446 1449 1452 500 star cles Purge rate Drawdown AMPLE 2 X	0.4 0.4 == 92-05 Um n shall be <0.33 PARAMETE SVOCs	0.09 0.09	7.3	280 279	23.59	36498	1.2	2.25				
1446 1449 1452 500 star cles: Purge rate Drawdown AMPLE 2 X	0.4 0.4 = 92-05 U/m n shall be <033 PARAMETE SVOCS	0.09 0.09 0.004 PRS 1 X Dis.	7.3 7.3 Mer.	280 279	23.59	36498	1.2	2.25				
1446 1449 1452 500 star cles: Purge rate Drawdown AMPLE 2 X SAMPLE	0.4 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0.09 0.09 0.09 0.00 ERS 1 X Dis.	7.3 7.3 Mer.	280 279	23.59	36498	1.2	2.25				
1446 1449 1452 500 star cless Purge rate Drawdown AMPLE 2 X AMPLE Otes Sample is Sample in	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	0.09 0.09 0.09 0.00 0.00 0.00 0.00 0.00	7.3 7.3 Mer.	280 279	23.59 23.6	36498 36491	1.2	2.25				
1446 1449 1452 500 star cles: Purge rate Drawdown SAMPLE 2 X SAMPLE Otes Sample is Sample in Condition	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	0.09 0.09 0.09 0.09 0.00 0.00 0.00 0.00	7.3 7.3 Mer.	280 279	23.59 23.6	36498 36491	1.2	2.25				
1446 1449 1452 500 star oles: Purge rate Drawdown AMPLE 3 AMPLE Otes Sample ra Condition Remarks	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.8 0.8 0.8 0.8 0.4 0.4 0.4 0.4 0.5 0.4 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.09 0.09 0.09 0.09 0.00 0.00 0.00 0.00	7.3 7.3 Mer.	280 279	23.59 23.6	36498 36491	1.2	2.25				
1446 1449 1452 500 star eles Puge rate Drawdown AMPLE 2 X AMPLE Sample is Sample in Condition Remarks	0.4 0.4 0.4 0.4 0.4 0.4 0.5 0.5 0.5 0.4 0.4 0.6 0.6 0.6 0.7 0.6 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	0.09 0.09 0.09 0.09 0.09 0.09 0.00 0.00	7.3 7.3 Mer. Uminubge rate =	280 279 279	23.59 23.6	36498 36491	1.2	2.25	Number of	Bottles	2X 1LA	
1448 1449 1452 500 star eles Pugge rate Drawdown AMPLE 2 X AMPLE Otes Sample is Sample in Condition Remarks:	0.4 0.4 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09	7.3 7.3 Mer.	280 279	23.59 23.6	36498 36491	1.2	2.25			2 X 1LA 250ml poly.	
1446 1449 1452 500 star eless Parge rate Drawdown AMPLE 2 X SAMPLE Condition Remarks: FIELD EC H Meter	0.4 0.4 0.4 0.4 0.5 0.4 0.5 0.5 0.5 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09	7.3 7.3 Mer. Uminuto perate =	280 279	23.59 23.6 23.6 Serial I	36498 36491	1.2	2.25				
1446 1449 1452 500 star sless Payse rate Drawdown AMPLE 2 X AMPLE Sample is Sample in Condition Remarks: EIELD EC H Meter Emperal Turbidity	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	0.09 0.09 0.09 0.09 0.09 0.04 0.04 0.04	7.3 7.3 Mer. Wier.	280 279	23.59 23.6 23.6 Serial I Serial I Serial I	36496 36491 3000 Sumber	1.2	2.25 2.5 3056 3956		1 X	250mi poly	
1446 1449 1452 500 star electronic star Parage rate Drawdown AMPLE 2 X AMPLE Outs Sample rate Sample rate Condition Remarks:	0.4 0.4 0.4 0.4 0.4 0.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.6 0.4 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09	7.3 7.3 7.3 Mer. Uminuberate =	280 279	23.59 23.6 Serial I Serial I Serial I Serial I	36496 36491 300d Number Number Number	1.2	2.25 2.5 3058 3856 3856 3856		1 X	250mi poly	
1446 1449 1452 500 star desy Purge rate Drawdown AMPLE 2 X Sample ra Sample ra Condition Remarks E H Meter Temperal Turbidity Spec. Ekt	0.4 0.4 0.4 0.4 0.4 0.4 0.5 0.4 0.4 0.6 0.4 0.6 0.4 0.6 0.6 0.1 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.09 0.09 0.09 0.09 0.09 0.09 0.00 0.00	7.3 7.3 7.3 Mer. Uminute perate =	280 279	23.59 23.6 Serial I Serial I Serial I Serial I Serial I Serial I	36496 36491 3000 Number Number Number Number	1.2	2.25 2.5 3058 3656 3656 3656 3656	Field Note	1 X book7	250mi poly	
1446 1449 1452 500 state 500 state Purge rate Crawdown 2 X X Sample rate 2 X X Sample rate Condition Remarks Turbidity Turbidity Con Met	0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.6 0.33 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	0.09 0.09 0.09 0.09 0.09 0.09 0.00 0.00	7.3 7.3 7.3 Mer. Uminute perate =	280 279 279	23.59 23.6 Serial I	36496 36491 3000 Number Number Number Number Number	1.2	2.25 2.5 3066 3656 3656 3656 3656	Field Note	1 X book7	250mi poly	
1446 1449 1452 1502 16039 1603	0.4 0.4 0.4 0.4 0.4 0.4 0.5 0.4 0.4 0.6 0.4 0.6 0.4 0.6 0.6 0.1 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6	0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09	7.3 7.3 7.3 Mer. Uminute Uminute apperate =	280 279 279	23.59 23.6 Serial II	36496 36491 3000 Number Number Number Number	1.2	2.25 2.5 2.5 3056 3656 3656 3655 3656 3656 5656	Field Note	1 X book7	250mi poly	



age	1		of	1	-
ate	Jan	uary:	31,2	005	

parameter.						SAMEL	NG DA	A SIILL			Date _Januar	y 31, 2005_
	e W1-12	⊇R			Screen	nterval	15 -	25				
rolect	CTO 86 Site	1 R7/05						TOC	Immiscible I	Phases Pr	esent	Yes X N
	199							Time _2.56/1233	2.58	1234	2.58/123	
	tionSite 1)	2.58			
	ateF		005						PID Readin	os (backo	round)	0
	Personnel										0	
aribang	_	Ramos				levation						
ample II	D	86-S1	-089			f Boltom of Ti						
uplicate		86-51	_					1) 2.58				
							URGING	·				
							UKGING				r	
				1					İ			
	Dischause					Specific Conduct.	1	Cumulative Volume of Water	PID/OVA	Reading		
	Discharge Rate [†]	Dissolved Oxygen		EWORP	Temn	(µmhos/cm	Turbidity	Removed/Purged			Depth to	
Time	(L/min)	(mg/L)	рН	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
1439	0.4	0.35	7			50144	40	0.25			1 1	
1442	0,4	0.13	7	-	23.9	56043	29	0.5				
1445	0.4	0.1	7		23.7	56100	34	0.75				
1448	0.4	0.08	7		23.6	56550	29	1				
1451	0.4	0.07	7		23.5	58772	28	13				
1454	0.4	0.07	7		23.4	56668	26	1,6			1	
1457	0.4	0.07	7		23.4	56689		1.8				
1407	V. 1	0.07	 '		20.7				 	1		
					_							
	 		-	 -	 	-						
500 star			\vdash		 		T		·	1		
oles:			_		J	<u> </u>	·	·				
	to = 0.2 • 0.5 L/mi on shall be <0.33											
	PARAMETI								1		T	-
	SVOCs	2 X Dis.	mer.	L		L		L	<u> </u>		J	
AMPLE	RATE								1		т	
otes	0.4	0.4				L		L			ل	
, Sample :	rate for VOCs and	elysis = 0 1 - 0.2	Uminul	ie .								
Sample	rate for non-VOC	s analysis = pur	ge rate :	0 2 - 0.5 L/s	naute							
Condition	n of Well:					Good						
Remarks												
IELD E	QUIPMENT											
H Mete	r	Hydrolab			Serial	Number		_3656			4 X 1LA	
	ature Meter				Serial	Number		3656		2 X	250ml poly	
Curbidity	/ Meter	_Hydroiab										
	lec Cond. Me				Serial	Number		3656	Field Note	book	68	
ORP Me	aterHyd	irolab			Serial	Number		3656				
	iterH					Number		3656	Sample M	ethod	Low Flo	W
	Probe				Serial	Number	2	5582				
	Α					Number		00320				
	Geo							A0041				
	marabie								Discharge	Water Co	ontainerized	X Yes



Page	1of1
Date_	_January 31, 2005_

Lucinosonu	op.											
Vell Name	eW1-14				Screen la	nterval	4.1 -	14.1				
roject	CTO 86 Site	1 R7/05			Station E	levation	GND _		Immiscible I]Yes ⊠ N
roject No	1990	. 086E			Static W	ater Lavel (fro	om TOC) /	Time _5.21/1219	5.22	1220	5.20/122	1
/ell Locat	tionSite 1)	5.21			
ample D	ateFa	bruary 1, 20		=	Reference	e Point	т	00	PID Readin	gs (backgi	round)	0
ampling f	Personnel	Ogle							PIO Readin	_ (TOC) p	0_	
		Ramos_			Static El	evalion			Notes			
									Feet of Wal	ter		
ample II		86-S1-	088_		Depth of	Bottom of Ta	ubing	9.1				
uplicate		NA			Depth to	Water (w/ Tr	ubing in we	li)5.21				
-11-1												
_	_					<u>'</u>	URGING					
	Discharge	Dissolved				Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading		
	Rate ¹	Oxygen		EN/ORP		(µmhos/cm		Removed/Purged	Location	Value	Depth to Water ² (ft)	Comments
Time	(L/min)	(mg/L)	pН	(mV)	(°C)	at °C)	(NTU)	(Gallons)		value	vvater (II)	Commence
1325	0.4	0.22	6.9	161	23.3	54472	32	0.25				
1328	0.4	0.12	7	158	Street, Square,	54757	18					
1331	0.4	0.11	. 7	152		55058	15				ļ	
1334	0.4	0.07	7	148		56170	13				ļi	
1337	0,4	0.07	7	148	_	55220	12			<u> </u>	 	
1340	0,4	0.08	7	122		55289	13		+	ļ	ļ	
1343	0.4	0.07	7	85		57362	10			 		
1346	0.4	0.07	. 7				7			<u> </u>		
1349	0.4	0.07	7		-					 		
1352	0.4	0.07	7	84	22.6	55118	. 4	2.5	4		 	
400 ster								<u> </u>	L	1		L
SAMPLE	e=02-0.5Umi m shall be <033 PARAMETE	icot IRS									· · · · ·	
	SVOCs	1 X Dis.	Mer.	L		1		L			<u> </u>	
SAMPLE									т		T	
	0.4	0.4		<u> </u>		<u> </u>		<u> </u>				
2. Sample r Condition	rate for VOCs one rate for non-VOCs of Well:	lysis = 0,1 - 0.2 analysis = pun	ge rate =	0 2 - 0.5 L/r		Good	×					
	QUIPMENT										2 7 41 4	
								3656			3 X 1LA 250ml poly	
	iture Meter					Number		3656		1 X	230mi poiy	
	Meter							_3656	Flatel Mark	ha alr	67	
	ec. Cond. Me							3656	FIELD NOTE	IUUOK	0,	
	terHyd					Number		3656	Caronic 14	lathed	Low Flo	164
D.O. MeterHydrolab Interfece ProbeSolinst						Number		3656	Sample M	einod	LOW FIG	w
						Number		25582				
PID/OVA	Probe	Mini-Rae			Serial I	Number		00320 A0041				



TETRA TECH CONTROL LOW-FLOW GROUNDWATER SAMPLING DATA SHEET SAMPLING DATA SHEET

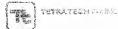
Page	1or1_	
Date	January 31, 2005_	

-	n.4											
/ell Name	W1-15				Screen i	nterval	4.4 - 1	4.4			_	
	CTO 86 Site	1 R7/05						TOC	Immiscible F	Phases Pr	esent	Yes X N
	199				Static W	ater Level (fro	om TOC)/	Time _5.43/1207	5.43/	1208	5.42/120	9
feli I onat	ionSite 1)	5.43			
mole D	ateF	bruary 1, 20	05								round)	0
	Personnel								PID Reading	(TOC)		_0
anspans) i	- GI 301 III -	Ramos				evation .						
ample II)	86-S1-	085					9.4				
	ID	NA	500					l)5.4_				
присате	<u></u>	INA			Серати			-/				
						F	URGING					
- 1				1		Specific		Cumulative			1 1	
- 1	Discharge	Dissolved		1		Conduct		Volume of Water	PID/OVA	Reading		
ı	Rate ¹	Oxygen		EWORP		(µmhos/cm		Removed/Purged		l	Depth to	
Time	(L/min)	(mg/L)	pH	(mV)	(°C)	at °C}	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
754	0.4	0.47	6.8	206	12.7	54859	20	0.25				
757	0.4	0.2	6.8			55033	19	0.5			 	
800	0.4	0.13	6.8	67	14.9	55062	4.9	0.75			ļ	
803	0.4	0.11	6.8		-	54986	3.3	1				·
806	0.4	0.09	6.7	49		56833	3	1.3			ļ	
809	0.4	0.09	6.7			50850	3					
812	0.4	0.08	6.7			50623	1.8				ļ	
815	0.4	0.08	6.7			50613				 	+	
818	0.4	0.08	6.7	44	17.1	50589	1.7	2.25	i		1	
			<u> </u>	ļ					ļ	 	 	
	Well stabaliz	ed - began s	amplir	<u> </u>	J	<u> </u>	1			<u> </u>	ــــــــــــــــــــــــــــــــــــــ	
lotes Purae rat	e = 02 - 0.5 L/m	nute										
	m shall be 40 93											
SAMPLE	PARAMET	ERS										
6 X	SVOCs	3 X Dis.	Mer.					<u> </u>	<u></u>		<u></u>	
AMPLE	RATE					,			7			
	0.4	0.4				L		J.,	1		1	
Sommio e	rate for VOCs an	rlysis = 0 1 - 0.2	Liminut	te								
	nate for non-VOC											
Condition	of Well:					Good						
Remarks												
TELD E	QUIPMENT											
H Mete	r	Hydrolab			Serial	Number		3656			6 X 1LA	
	ture Meter				Serial	Number		3656		3 X	250ml poly	
	Meter				Serial	Number		_3656				
	ec. Cond. Me				Serial	Number		3656	Fleid Note	ebook	66	
	terHy				Serial	Number		3656				
	ter H				Senal	Number		3656	Sample M	lethod	Low Fix	W
	Probe				Serial	Number		25582				
	Α				Serial	Number		_00320				
	Ge				Senai	Number	в	A0041				
	paratus								Discharge	e Water C	ontainerized	X Yes



Page	1_	of_	1_	-
Date	January	/31,	2005_	

2400.000.00	-di											
rell Nam	e W1-16				Screen I	ntervel	5.4-15	i.4				
ciect	CTO 86 Site	1 R7/05			Station E	Bevation	GND	TOC	Immiscible i	hases Pr	esent [Yes X N
	o. 1990							Time _7.60/1255	7.50/	1256	7.39/125	7
ell Loca	tionSite 1				Average	Water Level	(from TOC)		7.50			
	ateF		05						PID Reading	gs (backgr	round)	٥
	Personnel								PID Reading	(TOC)	0_	
		Ramos										
								RPTD	Feet of Wat	er		
ample li	n	86-S1-	095		Donth of	Bottom of Tu	ıbina	10.4				
uplicate		NA.						7.50				
								/				
					,	F	URGING					
- 1				İ	1 1	Specific		Cumulative	010/01/4	0	1 1	
	Discharge	Dissolved				Conduct.		Volume of Water	PID/OVA	reading	Depth to	
_	Rate ¹	Oxygen		EWORP		(µmhos/cm		Removed/Purged	Location	Value	Water ² (ft)	Comments
Time	(L/min)	(mg/L)	pН	(mV)	(°C)	at °C)	(NTU)	(Gallons) 0.25	LOCATION	Value	water (it)	Commente
1600	0.4	0.42	6.8	106		61461	1.2					
1603	0.4	0.17	6.8	96		62006	0.3	0.5		-		
1606	0.4	0.13	6.8	85	_	62069	0.2	0.75			ļi	
1609	0.4	0.1	68	77		62121	0.1	1				
1612	0.4	0.07	6.8	67	_	62241	0.4	1.3	ļ			
1615	0.4	0.06	6.8	70		62155	0.4	1.6		 		
1618	0.4	0.04	6.6	67		62190	0.4	1.8		ļ		
1621	0.4	0.05	6.8	- 66	23.46	62154	0.3	2	·			
			L		Ļ				 			
				L	ļ				ļ	ļ		
630 sta			<u> </u>	L		<u> </u>	<u></u>	l	L	L	<u> </u>	
iotes: . Purge rai	te = 02 - 0.5 L/mi	nute										
	vn shall be <0.33											
SAMPLE	PARAMETE	RS										
2 X	SVOCs	1 X Dis.	Mer.	T								7
	ERATE		-			1			·			
	0.4	0.4		1				T			T T	
otes:				<u> </u>		<u> </u>		L				
. Sample	rate for VOCs and rate for non-VOCs	lysis = 01 - 02	Liminut	02 0514								
. Sample						300d						
			_			500d						
							·-					
Remarks	s:											
emarks	S:							2000	N. sminer of	Dollar	2 7 11 4	
Remarks IELD E IH Mete	QUIPMENT	Hydroleb_			Serial I	Number		_3656			2 X 1LA	
Remarks IELD E IH Mete Tempera	s: QUIPMENT rature Meter	Hydrolab_ Hydrolab			Serial I	Number		3656			2 X 1LA 250ml poly	
Remarks HELD E H Mete Tempera Turbidity	s:	Hydroleb_ Hydroleb _Hydroleb			Serial I Serial	Number Number		3656		1 X	250ml poly	
Remarks HELD E H Mete Tempera Turbidity Spec. E	COUPMENT Tature Meter y Meter lec. Cond. Me	Hydrolab_ Hydrolab _Hydrolab_ terHydro	olab		Serial I Serial Serial	Number Number Number		3656 3656 3656		1 X		
Remarks FIELD E OH Mete Tempera Turbidity Spec. E ORP Ma	COUIPMENT ature Meter Meter lec. Cond. Me eter Hyd	Hydrolab_ Hydrolab _Hydrolab_ terHydro Irolab_	olab		Serial I Serial Serial	Number Number Number Number		3656 3656 3656 3656	Field Note	1 X book7	250ml poly/	
Remarks FIELD E H Mete Tempera Turbidity Spec. E ORP Mete D.O. Mete	S:	Hydrolab_ Hydrolab _Hydrolab_ terHydro lrolab_ drolab_	olab		Serial I Serial Serial Serial Serial	Number Number Number Number Number		3656 3656 3656 3656	Field Note	1 X book7	250ml poly	
FIELD E pH Mete Tempera Turbidity Spec. E ORP Me D.O. Me Interface	SCUIPMENT or atture Meter y Meter lec. Cond. Me ster Hyce Probe	Hydrolab Hydrolab Hydrolab ter Hydro Irolab drolab Solinst	nlab		Serial I Serial Serial Serial Serial	Number Number Number Number Number Number Number Number Number		3656 3656 3656 3656 3656 3656	Field Note	1 X book7	250ml poly/	
Remarks FIELD E THE Mete Fempers Turbidity Spec. E ORP Me D.O. Me Interface	S:	Hydrolab Hydrolab Hydrolab ter Hydrol Irolab drolab Solinst Vinl-Rae	nlab		Serial I Serial Serial Serial Serial Serial	Number Number Number Number Number Number Number		3656 3656 3656 3656	Field Note	1 X book7	250ml poly/	



TETRATECH FARE. LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

age,	1_	_ 01_	1_	-
Date	Janura	y 31,	2005_	

3 more			_									
Well Nam	eW1-19				Screen I	nterval	14 - 1	9				
Project	CTO 86 Site	1 R7/05			Station I	Elevation	GND_	100	immiscible l	Phases Pr	esent	Yes X No
Project No	199	0.086E			Static W	ater Level (fro	om TOC) /	Time _4 76/1214	4 75/	1215	4.77/121	6
Well Local	tionSite 1				Average	Water Level	(from TOC)		_4.76			
Sample D	ateF	ebruary 1, 20	005					oc	PID Reading	gs (backgi	round)	0
Sampling	Personnel	Ogle_			Referen	ce Elevation _			PID Reading	g (TOC) _	0_	
		Ramos_			Static E	levation			Notes			
					Well De	pth MEAS_2	1.20R	PTDOTF	Feet of Wat	er		
Sample II	·	86-81	-086_		Depth o	f Bottom of Tu	ubing	16.5				
Duplicate	ID	NA			Depth to	Water (w/ To	ubing in we	l)4.77				
							URGING					
<u> </u>				-			ORGING		T			
1				l								
	Discharge.					Specific Conduct.		Cumulative Volume of Water	PID/OVA	Readina		
	Discharge Rate ¹	Dissolved Oxygen		El/ORP	Temp		Turbidity	Removed/Purged			Depth to	
Time	(L/min)	(mg/L)	pН	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
1243	0.4	0.27	6.9	279	28.5	47946	0.7	0.25	1		1	
1246	0.4	0.15				48361	0.6	0.5				
1240	0.4	0.11	6.9			47226	1.6	0.76			· · · · · · · · · · · · · · · · · · ·	
1252	0.4	0.11	6.6			46988	2.5	1		 		
	0.4	0.08	_			48702	1.6	1.5		 	 	
1255	0.4	0.05	6.8			48829	1.5	1.5		-	 	
1258	0.4	0.07	6.6			48777	1.4					
1300	0.4	0.07	- 00	155	24.90	40/11	1,74		+			
ļ		 			-				 	 		-
ļ <u> </u>			├-		-		 					
1000	Well stabaliz			-	├		 	····	 	 	 	
Notes:	vveii stabaliz	eu - pegan s	sai ii pat	4				L	1			·
1. Purge ret	te = 0.2 - 0.5 L/mi	inute										
2 Drawdov	on shall be <0.35	toot										
SAMPLE	PARAMET	ERS							,			
2 X	SVOCs	1 X Dis.	Mer.					l	1			
SAMPLE	ERATE										.,	
	0.4	0.4						<u> </u>			<u>.l</u>	
Notes	rate for VOCs and) (minut	_								
2 Sample	rate for non-VOC	s analysis = pur	ge tate :	02-051/r	ninute							
Condition	n of Well:					Good						
	3.											
	QUIPMENT											
	r	Hydrofab			Serial	Number		_3656	Number o	f Bottles	2 X 1LA	
	ature Meter							3656		1 X	250ml poly	
	Meter							3656				
	lec. Cond. Me							_3856	Field Note	book_	67	
	eterHy							3656				
	terH				Serial	Number		3656	Sample M	lethod	Low Fig	W
	e Probe							25582				
	A							00320				
Dump.	Ge	o-Pump				Number		A0041				
rump_		от aпр			Gena				Discharge	- Itlates C.	entanorized	V Voc D M



Page	1	of.	1_
Date	January	31.	2005

£	بخصيد										Date Taging	y 51, 2005_
Well Nam		2			Screen	Interval	NΔ					
	CTO 86 Site								Immiscible !	Phases Pr	esent [Yes X N
	o. 199				Static V	later Level (fo	nm TOC) /	Time_3.45/1237				
	tionSite 1)				
	Date F		005						PID Readin	as (backa	round)	0
	Personnel											
	_	Ramos										
Semple I	D	86-81	-091_			f Bottom of T			-			
Duplicate	e ID	NA_						II)3.45				
							PURGING					
									ŀ		l i	
	Discharge	Dissolved		ĺ		Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading	! i	
	Rate ¹	Oxygen	1	EWORP	Temo	(µmhos/cm	Turbidity	Removed/Purged			Depth to	
Time	(L/min)	(mg/L)	p∺		(°C)	at °C)	(NTU)	(Gallons)	Location	Velue	Water ² (ft)	Comments
1308	0.4	0.4	7		22	10183	2.3	0.25				
1311	0.4	0.22	7	144		3041	2	0.5				
1314	0.4	0.1	7	133	23.73	3417	1.9	0.75				
1317	0.4	0.06	7		23.98	3398	1	1				
1320	0.4	0.07	7	128	24	3471	1.4	1.3				
1323	0.4	0.06	7	127	24.06	3444	1.3	1.6				
				1								
		——	1						-			
				_								
			-		 		 			 		
1330 star			1				 			 -		
ictes:		·				4		<u></u>				
	to=0,2 -0.6 L/mii vn skraft be <0,33											
	PARAMET											
		1 X Dis.	Mor	т —		T		1			1	$\overline{}$
	SVOCs	I A DIS.	Wei.	ــــــــــــــــــــــــــــــــــــــ		<u> </u>		L	<u> </u>		J	
SAMPLE				т		т —		Τ	Г			1
intes.	0.4	0.4						L			<u> </u>	
1. Sample i	rate for VOCs and	ilysis = 0 1 • 0.2	Uminut	•								
	rete for non-VOC											
	n of Well:					Good						
	QUIPMENT											
	r							_3656			2 X 1 LA	
	ature Meter				Seriel I	Number		3656		1 X	250ml poly	
	Meler							_3656				
Spec. El	lec, Cond. Me	terHydro	dato					_3656	Field Note	book <u>6</u>	<u> </u>	
	eterHyd				Serial	Number		_3656				
D.O. Me	terHy	rdrolab			Serial	Number		3656	Sample M	ethod	Low Flo	"
Interface	Probe	Solinst			Serial	Number		5582				
PID/OV/	Ai	Mini-Rae						00320				
Pump_	Geo	-Pump			Serial	Number		A0041				
	neratus								Discharge	Water Cr	ntainerized	X Yes I



Page	
Date	January 31, 2005

41	-					OJ =					Date _January	31, 2000_
leil Nam	e W1-2				Screen I	Interval	NA_					
	CTO 86 Site	1 R7/05			Station E	Elevation	GND_	TOC	Immiscible i	Phases Pr	esent	Yes X N
	199				Static V	ater Level (fr	om TOC) /	Time _5.61/1227	5.61/	1228	5.60/122	9
	tionSite 1)	_5.61			
mple D	ateF	bruary 1, 20	005	$\neg \neg$				oc	PIO Reading	gs (backgi	round)	00
	Personnel								PIO Readine	g (TOC)	00	
		Ramos_							Notes	-		
								םדי				
mple II		86-51	-087					6.0				
mlicate		NA			Depth k	Water (w/ T	uthing in we	ll)5.61				
рисии								.,				
							PURGING		r		1 1	···
				ļ								
- 1				1		Specific		Cumulative	PID/OVA	Reading		
	Discharge	Dissolved			Temp.	Conduct.	Turbidity	Volume of Water Removed/Purged	TIDIOVA	Troubung .	Depth to	
	Rate ³	Oxygen	рН	EN/ORP (mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
Time	(L/min)	(mg/L) 0.3	7.2	157				0.25				
1414	0.4							0.5		-		
1417	0.4	0.22	7.2					0.75		-	 	
1420								0.70	 			
1423	0.4	0.2	7.3				eri				1	
1426	0.4	0.2	7.3	150	21.1	ļ					 	
			—		 	 	 		├		1	
		-	├				├ ──		-			
vell emp			⊢		·	 	 	 	 	 		
		ļ			-	 	 	 	 			
			├		 			ļ		+		
otes:	L	L	1	l	1	<u> </u>		1	<u> </u>	L		
. Purge rat	to=0.2-0.5 L/mi	nute										
Drawdov	in shall be <0.33	foot										
AMPLE	PARAMET	ERS										
3 X	SVOCs	1 X Dis.	Mer.								<u> </u>	
AMPLI	RATE											
	0.4	0.4		1								
otes		1										
Sample:	rate for VOCs and rate for non-VOC	elysis = 0 1 - 0 2 s analysis = nu	? E/minul vie rate ?	te = 0.2 + 0.5 L/	minute							
	n of Well:					Good						
	:											
	QUIPMENT											
		t bankentak			Parial	hlumbar		_3656	Number o	f Boltles	3 X 1LA	
	·				Cariol	Number		3656			250ml poly	
	ture Meter _							3656				
	Meter							_3656	Field Note	-book	68	
	lec. Cond. Me								, leid 1900			
	eterHy				Serial	Number		3656 _3656	Sample M	teithori	Low Flo	w
3 O. Ma	terH	drolab							Sample			
nterface	Probe							25582				
nterface PID/OV	Probe AGe	Mini-Rae			Serial	Number		00320 A0041				



Page1 of _	1_
Date _January 31,	2005_

	of a												
iell Name	W1-24				Screen I	nterval	6 - 1	6					
	TO 86 Site								Immiscible i	hases Pr	esent [Yes X N	
	1990				Static M	ater Level (fro	m TOC) /	Time 6.98/1251					
	onSite t)	6.98				
	iteF										ound)	0	
	ersonnel										00		
ampling r		Ramos_											
		Kanios_						RPTD					
		86-S1-	004						1 661 01 1101	··			
ample ID			-U9 4			Bottom of Ta							
uplicate	ID	NA			Depin to	vvater (w/ To	Joing in we	lt)6.98_					
						F	URGING				· · · · · · · · · · · · · · · · · · ·		
- 1											1		
- 1					1	Specific		Cumulative	PID/OVA	D			
- 1	Discharge	Dissolved				Conduct.		Volume of Water	PIDIOVA	resung	Depth to		
	Rate ¹	Oxygen		EWORP				Removed/Purged (Gallons)	Location	Value	Water ² (ft)	Comment	
Time	(L/min)	(mg/L)	pН		(°C)	at °C)	(NTU) 1.4	0.25	Location	VUICE	Troici (ii)	- Committee	
1515	0.4	0.21	7	84		50279							
1518	0.4		7	85	_	49792	1.4						
1521	0.4	0.08	. 7	73		49489	1.3						
1524	0.4	80.08	6.9			49590	1.3	1					
1527	0.4	0.07	6.9	61	24.8	49856	0.4	1.3					
1530	0.4	0.07	6.9	60	24.74	49771	0.4						
1533	0.4	0.08	6.9	55	24.67	49680	0.4						
			6.9	57	24.69	49663	0.3	. 2	:1	!	1		
1536	0.4	0.08	0.9	37	27.00	10000							
1536 1539	0.4 0.4		6.9		_	40692	0.3	4					
1539					_								
					_								
1539 545 star otes. Purge rate	0 4 = 02-05 Limi	0.08			_								
1539 545 star bles. Purge rate Drawdown	0 4 = 0 2 - 0 5 L/mi n sholl be <0 33	0.08			_								
1539 545 star Hers. Purge rate Drawdown	= 02-05 L/mi = shall be <033 PARAMETE	0.08	6.9	58	_								
1539 545 star oles. Purge rate Drawdown	0 4 = 02-05 L/mi n sholl be <039 PARAMETE SVOCS	0.08	6.9	58	_								
1539 545 star otes. Purge rate Drawdown SAMPLE 2 X S	0 4 = 02-05 L/mi = short be <033 PARAMETE SVOCS RATE	0.08	6.9	58	_								
1539 545 star otes. Purge rate Drawdown AMPLE 2 X S	0 4 = 02-05 L/mi n sholl be <039 PARAMETE SVOCS	0.08	6.9	58	_								
1539 545 star otes. Purge rate Drawdown SAMPLE 2 X : SAMPLE iotes , Sample :s	0 4 = 0.2 - 0.5 L/mil n shoth be < 0.33 PARAMETE SVOCS RATE 0.4	0.08 mute loot ERS 1 X Dis. 0.4	Mer.	58	24.7							I.	
1539 545 star otes. Purge rate Drawdown AMPLE 2 X 3 AMPLE Otes Sample rate Sample rate	0 4 = 0.2 - 0.5 L/mil n shoft be <0.33 PARAMETE SVOCS RATE 0.4 ste for VOCs and also for non-VOCs	0.08 mute look ERS 1 X Dis. 0.4 litysts = 0.1 - 0.2 s analysis = puri	Mer.	20 2 - 0.5 LM	24.7	40692							
1539 545 star otes. Purge rate Drawdown AMPLE 2 X 3 AMPLE Otes Sample rate Sample rate	0 4 = 0.2 - 0.5 L/mil n shoth be < 0.33 PARAMETE SVOCS RATE 0.4	0.08 mute look ERS 1 X Dis. 0.4 litysts = 0.1 - 0.2 s analysis = puri	Mer.	20 2 - 0.5 LM	24.7								
1539 545 star otes. Purge rate Parwdown AMPLE 2 X 5 AMPLE otes 9 ample rate Sample rate	0 4 = 0.2 - 0.5 L/mil n shoft be <0.33 PARAMETE SVOCS RATE 0.4 ste for VOCs and also for non-VOCs	0.08 mute look ERS 1 X Dis. 0.4 liyets = 0.1 - 0.2 s analysis = put	Mer.	20 2 - 0.5 LM	24.7	40692							
1539 545 star otes. Purge rate prawdown AMPLE 2 X 3 AMPLE otes: 9 ample or Condition Remarks.	0.4 s=0.2-0.5 Limit hand the <0.039 PARAMETE SVOCS RATE 0.4 0.4 control for NOCs again for non-NOCs of Well:	0.08 nute foot RS 1 X Dis. 0.4	Mer.	58 0 2 - 0.5 LW	24.7	40692	0.3	2.25					
1539 545 star bes. Purge rate Drawdown AMPLE 2 X 5 AMPLE Ottes Sample rate Sample rate Condition Remarks. FIELD EC H Meter	0.4 p = 0.2 - 0.5 Limit to a 0.0 33 PARAMETE SVOCS RATE 0.4 pre for VOCs and alle for non-VOC of Welt:	0.08 nute foot RS 1 X Dis. 0.4 hydrs = 0.1 - 0.2 Hydrolab	Mer.	58 58	24.7	40692	0.3	2.28	Number o		2X1LA		
1539 545 star bes. Purge rate Drawdown AMPLE 2 X 5 AMPLE Ottes Sample rate Sample rate Condition Remarks. FIELD EC H Meter	0.4 s=0.2-0.5 Limit hand the <0.039 PARAMETE SVOCS RATE 0.4 0.4 control for NOCs again for non-NOCs of Well:	0.08 nute foot RS 1 X Dis. 0.4 hydrs = 0.1 - 0.2 Hydrolab	Mer.	58 58	24.7	40692	0.3	2.25	Number o		2 X 1 LA 250mi poly_		
1539 545 star bes. Purge rate Drawdown AMPLE 2 X : AMPLE Ottes Sample rate Sample rate Condition Remarks. FIELD EC H Meter Femperal	0.4 p = 0.2 - 0.5 Limit to a 0.0 33 PARAMETE SVOCS RATE 0.4 pre for VOCs and alle for non-VOC of Welt:	0.08 Invote foot ERS 1 X Dis. 0.4 hydro = 0.1 - 0.2 Analysis = purp Hydrolab Hydrolab	Mer.	58 58	Serial I Serial I	40692 Good	0.3	2.25	Number o	1 X	250mi poly		
1539 545 star bles. Purge rate Drawdown AMPLE 2 X 3 AMPLE cotes Sample ra Condition Remarks. FELD EC H Meter Femperal Furbidity	0.4 see 0.2 of SUMM nation to 0.53 PARAMETE SVOCS RATE 0.4 see for VOCs anale for non-VOC of Welt:	0.08 nute look ERS 1 X Dis. 1 x Dis. 4 ydrolab Hydrolab Hydrolab	Mer.	58 58	Serial I Serial I	40692 Good	0.3	2.25	Number o	1 X	250mi poly		
1539 545 star otes. Purge rate Prawdown SAMPLE 2 X 5 SAMPLE cotes: Sample rate Sample rate Sample rate Sample rate Sample rate Sample rate Temperat Turbidity Spec. Ele	0.4 0.4 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.6 0.7 0.6 0.7 0.7 0.7 0.7 0.7	nute foot RS 1 X Dis. 0.4 hydrolab _ Hyd	Mer.	22 · 0.5 L/s	Serial Serial Serial Serial	40692 Good Number Number Number Number	0.3	2.25 3856 3856 3856 3866 3866 3866	Number o	1 X beok	250mi poly		
1539 545 star otes. Purge rate Drawdown SAMPLE 2 X : SAMPLE intes . Sample rate Condition Remarks FIELD EC oH Meter Turnbidity Specific Sides ORP Meter ORP	0.4 p = 0.2-0 s Limit n shaft be <0.33 PARAMETE SVOCS RATE 0.4 QUIPMENT Lure Meter	0.08 nute foot ERS 1 X Dis. 0.4 hydrolab Hydrolab Hydrolab Hydrolab ice Hydrolab	Mer.	20 2 - 0.5 LM	Serial Serial Serial Serial	40692 Good Number Number Number Number	0.3	2.25 3856 3856 3856 3866 3866 3866	Number o	1 X beok	250mi poly		
1539 545 star obs. Purge rate Praydown SAMPLE 2 X 3 SAMPLE 1056 SAMPLE 1056 Condition Remarks FIELD EC OH Meter Temperal Turbidity Spec. Ele ORP Met D.O. Met	0.4 = 32.0 S Limits in shirth te 4033 PARAMETE SVOCS RATE 0.4 see for VOCs ensure for went-VOCs of Welt: Lure Meter Meter Sc. Cond. Mediter Lure Hyder Lure Lure Hyder Lure Lure Hyder Lure Lure Hyder Lure Lure Hyder Lure Lure Hyder Lure	0.08 ovite tool CRS 1 X Dis. 0.4 hydrolab Hydrolab Hydrolab Hydrolab Hydrolab Hydrolab Hydrolab Hydrolab	Mer.	22 · 0.5 L/s	Serial Serial Serial Serial Serial Serial	40692 Good Number Number Number Number Number Number	0.3	3858 3858 3856 3856 3856 3856	Number o	1 X beok	250mi poly		
1539 545 star otes. Purge rate Drawdown SAMPLE 2 X : SAMPLE Condition Remarks. FIELD EC OH Meter Temperal Turbidity Spec Ele DR O Met Interface	0.4 p = 0.2-0 s Limit n shaft be <0.33 PARAMETE SVOCS RATE 0.4 QUIPMENT Lure Meter	mute feet SERS I X Dis. 0.4 hydrole = 0.1 - 0.2 hydrolet Service = purple Hydrolet Hydrolet Hydrolet fer Hydrolet Servicolet Servicolet Servicolet Solinet Solinet	Mer.	20 2 - 0.5 LM	Serial I Serial I Serial Serial Serial Serial Serial	40092 Number Number Number Number Number Number Number Number Number Number Number	0.3	2.25 3856 3856 3856 3866 3866 3866	Number o	1 X beok	250mi poly		

MARCH 2005



age	1	_of_	1	-
ate	3/7/0)5		

Well Nan	neW1-1R					Interval					-	- nvi
Project	CTO 86-Site	1. R8/05			Station	Etevation	GND_	TOC	Immiscible :	Physes Pr	esent	Yes 🕅 No
Project No				_	Static V	/ater Level (fr	om TOC) /	Time 7.70 / 676	y 7.2	1/0904	7.21	10900
Well Loca	tion _Motfett	Sife 1		_	Average	Water Level	(from TOC	121				
Sample D	Date 3/1	05			Referen	ce PointT	OC .				round) <u>B</u>	
Sampling	Personnel	D. HARRIS	ON		Referen	ce Elevation			PID Readin	g (TOC)_	Ø pp L	
		M.RAMOS			Static E	levation			Notes			
_					Well De	oth MEAS 2	7.46 F	PTD	Feet of Wal	ter		
Sample I	D 86-S1-09	5				f Bottom of T						
	e ID N/A					Water (w/ T						
			_			!	PURGING					
		l	i		į .	Specific		Cumulative	PID/QVA	Peading		
	Discharge	Dissolved			T	Conduct.	Thomas Labors	Volume of Water	FIDIOVA	r,cading	Depth to	
_ [Rate ¹	Oxygen		Eh/ORP			Turbidity	Removed/Purged ((Gallons)	Location	Value	Water ² (ft)	Comments
Time	(L/min)	(mg/L)	pH 2 2	(mV)	(°C)	at °C)	(NTU)		Cocadon	Value	7.23	- Commonto
1019	14	.43	7.3	455	23.1	1812	18			-		
1022	14	.32		440	33.0	223/	Ø	-3			7.26	
1025	.9	.17	7,3	417	22.8	3/25	0_	.5	<u> </u>	 	7.27	
1028	1.4	0.12	2.3	394	32.7	4320	0				7.27	
1031	.4	0.09	7.3	391	23.8	5682	Ø,	٠٢			7.24	
1034	.4	8.07	7.3	388	22.9	5125	×				7.27	
1055	Collect	Sample										
			Ī				L			L		
		L										
		Γ			Ţ					L		
	1			1	_	I					<u> </u>	
Notes.												
	te = 0.2 - 0.5 L/m on shall be <0.39											
	E PARAMET										т	
	SVOC6	1xD.ME	RC.	<u> </u>					l			
SAMPLI											T	
	1	1 .4		L		<u> </u>		L	i		1	
Notes: 1 Secole	rate for VOCs an	abais = 0.1 - 0.2	2 L/minu	le								
2. Sample	rate for non-VOC	a analysis = pu	ge rate	02-050	mistute							
Conditio	n of Well: <u>6</u>	~~l - N	ool.	· Maux	. }							
D-marks	s: Odor f	000 / / 0	lacke.	ck								
nemark	a. <u> </u>	. <u> </u>	٠٠ سو									
	QUIPMENT											
pH Mete	er	HYDROLA	В		Serial	Numbar <u>\$</u>	R10797		Number a			
	ature Meter _				Serial	Number	R10797				1X250mLP	
	y Meter				Serial	Number	R10797					
	lec. Cond. Me				Serial	Number	R10797					
	eter H				Serial	Number	R10797		Field Note	book Po	2.74	
	ster H						R10797				, , , ,	
	e Probe _ SC						25582		Sample M	ethod _Lo	w Flow	
	A M						100320					
		EO-PUMP					BA0041					
	aparatus (DON						Discharge	Water Co	ntainenzed	X Yes N



Page_	1	_of_	1
Date	3/7/0	15 .	

Well Nan	ne W1-5				Screen	Interval	14.5-1	9.5			_		
Project _	CTO 86-Site	1, R8/05				Elevation			Immiscible I		resent	Yes X No	
Project N	0. 1990.0	36E			Static V	Vater Level (fr	om TOC)	Time 4.80/8947	<u> 1 4.9</u>	10/0847	4.29	10948	
Well Loca	tion _Moffett	Site 1			Average	Water Level	(from YOC	34.80 '			,		
Sample I	Date 3/8/	105			Referen	ice PointI	oc		PID Readings (background) Oppn PID Reading (TOC) Oppn				
Sampling	Personnel_	O. HARRIS	ON		Referer	ce Elevation			PID Readin	g (TOC) <u>(</u>	DAY		
		M RAMOS				levation			Notes		••		
					Well De	epth MEAS <u>2</u>	1.28 i	RPTD	Feet of Wat	er			
	D 86-S1-10					of Bottom of T							
Duplicat	e ID <u>86-S1</u>	104			Depth t	o Water (w/ T	ubing in W	(ell) <u>4.80</u>					
							PURGING						
							l						
						Specific		Cumulative			i	į	
	Discharge	Dissolved		1		Conduct.		Volume of Water	PID/OVA	Reading		i	
	Rate ¹	Oxygen		EWORP	Temp.	(µmhos/cm	Turbidity	Removed/Purged			Depth to	1	
Time	(L/min)	(mg/L)	pH	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Vvater2 (ft)	Comments	
0000	.4	2.40	7,3	383	24.4	1216	4.0	. 1			4.82		
0953	44	1.62	73	351	23.6	4390	4.2	. 3			4.84		
0956	.4	0.23	7.3	333	22.1	8710	2,7	.5			4.85		
0159	.4	0.18	7.3	244	22.5	10237	2.4	.7			4.86		
1002	,4	0.15	13	228	22.7	10105	20	. 7			4.87		
1005	.4	8-11	73	211	33.0	10431	2.0	1.1			4.88		
1007	Collect	Sundle							-				
1015	Collect	Field	Qu)	virote	1								
,,,,,	- (), (0.5)	7	1-1-1	1									
	•					-		Silvino 3.0		-			
Notes													
	te ≈ 0.2 - 0.5 L/m vn shall be <0.33												
	PARAMET		-			T					Τ-		
	VOC's	D.MEF	RC.			J			L		<u>}</u>		
SAMPLI		1 .1						r	т —		1		
Notes:	4	1.4						<u> </u>	<u> </u>		ــــــــــــــــــــــــــــــــــــــ		
1. Sample	rate for VOCs en												
2 Sample	rate for non-VOC	s analysis = pu	ige rate:	= 0.2 · 0.5 L/	minute								
Conditio	n of Well: 🕓	~ed											
Remarks		,											
CIEL O E	OURNERT												
	QUIPMENT	י יספטעע	ь		Sanci	Number	R10797		Number of	Bottles	4x1LA		
	ature Meter						R10797				2x250mLP		
							R10797						
	Meter lec. Cond. Me						R10797						
									Field Note	book D	s 78+	79	
	ter <u>H</u>									~~~ <u>15</u>	0, ,,,		
	terH						#R10797 #25582		Sample M	ethod I o	w Flow		
	ProbeSC						#200320		Danibic M	U. 100 _ED			
	AM						BA0041						
	naratus (PON		OBIB;	ranner	UNDUT!		Discharge	Water Co	ntsinerized	X Yes No	



TETRATECH PAGE LOW-FLOW GROUNDWATER

age,	_1_ 0	_1
Date .	3/7/05	

Well Nan	ne <u>W1-8</u>				Screen	interval	13-18					
Project_	CTO 86-Site	1, R8/05			Station	Elevation	GND	TOC	Immiscible	Phases Pa	resent	Yes X No
Project N	o. 1990,0	86E			Static V	Vater Level (fr	om TOC)	Time 4,98/07	T 1 4,	88/09	resent [8/0952
Well Loca	ation Moffett	- Site 1				Water Level						
	Date 3/9							,	PID Readin	as (backa	round) (\D\D)	le.
	Personnel _		ON						PID Readin	a (TOC)	Daguille	
- uniquing		M.RAMOS	***			evation			Notes	g (100)_	copp.s	
		MIIVANIOS_					17 70 .	RPTD	Feet of Wal			
	D 00 04 40								reet of vval			
	D_86-S1-10			- 1		it Bottom of T						
Барисат	e ID n/a				Depth to	o Waler (w/ T	ubing in W	eli) <u>4,37</u>				
							URGING					
		I			T							
				l		Specific	İ	Cumulative				
	Discharge	Dissolved		l		Conduct.		Volume of Water	PID/OVA	Reading		l
	Rate ¹	Oxygen		EH/ORP	Temp	(umhos/cm	Turbidity	Removed/Purged		· · · · · ·	Depth to	i
Time	(L/min)	(mg/L)	рН	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
1050	, ų	0.86	7.4	340	26.5	1402	25	.)			4.91	
1053		0.52	7.4	360	24.8	3270	1.0	3			4.43	
1056		0.37	74	360	24.2	9470	3.8	15			4.94	
1054	-7	0.48	7.4	359	23.8	9380	4.4	17	·		4.96	
1052	.4	0.05	17.7	359	23.6	9240	4.1	9			4.97	
			1.7	ردد	$\varphi_i \varphi$	7290	71/	1./		-	19.77	
1055	Collect	Same	├—	├	 		-					
<u> </u>			⊢		 	 	├─-		-	-	 	
		<u> </u>				-					1	
			<u> </u>	ļ								
			<u> </u>			<u> </u>				1		
	L				<u> </u>	L	L		L		L	
Notes 1 Pure rel	e=02-05Um	curte										
	m shall be <0.33											
CAMPIT	PARAMETI	FBS										
	VOC's	D.MER		1							T	
		U.MEN				L					·	
SAMPLE		4.	i.	_				т				1
Notes.	Llm	190	14	Ц.		<u> </u>		L			1	
	rate for VOCs and	nlysis = 0.1 - 0.2	L/minu	te								
2. Sample	rate for non-VOC	s analysis = pur	ge rate	■ 0.2 · 0.5 LA	minute							
Condition	of Well: _ C	an										
	Sign		. / <	Tha Lt	- 112	Sociar						
		4.00	1	1								
	QUIPMENT											
		HYDROLA			Serial I		R10797		Number of	Bottles_	2rf LA	
Tempera	iture Meter	HYDROLA	NB		Serial I	Number #	R10797				1x250mLP	
Turbidity	Meter	HYDRO	LAB_		Serial I	Number#	R10797					
Spec. El	ec. Cond. Me	ter <u>HYDR</u>	OLAB		Serial I	Number#	R10797					
ORP Me	ter H	YDROLAB			Serial I	Number #	R10797		Field Notel	book 🔀	- 79	
D.O. Me	ter H	DROLAB			Serial I	Number #	R10797				, .,	
	Probe SQ				Serial I	Number #	25582		Sample M	ethod _Lov	w Flow	
PID/OV		NI-RAE			Serial Number #00320							
Pump_		EO-PUMP				Number E						
	paratus C		RON						Discharge	Water Co	ntainerized	X Yes No



Page_	1_	of_	1_
Date_	3/7/0	5_	

Well Nan	ne <u>W1-12</u>	R			Screen Interval 15-25								
Project	CTO 86-Sits	1, R8/05				Station Elevation GND TOC Immiscible Phases Present							
Project N	lo. <u>1990.0</u>	86E			Static V	Vater Level (fi	om TOC)/	Time 2.02/093	8 2.0	92/ 0 939	202		
Well Loc	ation Moffett	- Site 1						2.00		,		/	
Sample	Date 3/7/	05				nce PointT			PID Readin	gs (beckg	round) OA	oi	
Sampling	Personnel	D. HARRIS	ON						PID Readin	a (TOC)	Osom 1		
	_	M.RAMOS				levation			Notes				
Sample	ID 86-S1-10	1				of Bottom of T							
	e ID N/A			_				ell) 2,82					
=								,					
			,			<u>,!</u>	PURGING						
1			1	l	ŀ		ŀ						
1				1		Specific		Cumulative					
1	Discharge	Dissolved				Conduct.	l	Volume of Water	PID/OVA	Reading			
Į.	Rate ¹	Oxygen		ENORP		(µmhos/cm		Removed/Purged		ŀ	Depth to		
Time	(iJ/min)	(mg/L)	pН	(mV)	(°C)	at °C)	(NTU)	(Gallens)	Location	Value	Water ² (ft)	Comments	
1445	.4	0.61	7.1	355	27/	1210	40	.			2,02		
1448	-9	0.33	21	341	26.7	1362	44	٠,3			2.02		
1451	1.4	0.15	7.1	325	25.6	1475	39	.5			2.02		
1454	.4	0-11	7.1	294	125.4	1492	34	.7			2.02		
1457	.4	0.08	7.1	790	25.1	1522	35	.9			2-02		
1500	Callect	Saugh	T		1			,					
73-0	Cara si	200741	 	 	 		-						
			 		_								
	 		1		1								
		 		 	1	 							
	-	 	+-	 	+	 							
Notes.		<u> </u>	L.		J	L			L.—				
	te=0.2-05Um												
2. Drawdov	vn shall be <0.33	foot											
SAMPLI	E PARAMETI	ERS											
8	VOCs	D.MEF	SC.										
SAMPLI	ERATE											•	
	4 Llur	146	14.	Τ		1						1	
Notes:	-										1		
	rate for VOCs and												
	rate for non-VOC		ge rate :	02-0514	mmute								
Condition	n of Well: _G	escol	,	,									
Remarks	Green	Howbed	wa	100-	Slig	4- 42	S ador						
	QUIPMENT	1			v								
					0.441		D40707		Normalis and add	D-W	27414		
	r					Number #			Number of				
	ature Meter_						R10797				x250mLP		
	Meter					Number#							
	lec. Cond. Me		OLAB			Number#							
	eter H								Field Notel	book <u>rá</u>	5 76+7	7	
D O. Me		(DROLAB			Serial Number #R10797								
	nterface Probe <u>SOLINST</u>						25582		Sample M	ethod _Lov	v Flow		
P(D/OV	AMI	NI-RAE			Serial I	Number#	00320						
Pump_	G	O-PUMP			Serial I	Number	A0041						
Eilter An	maratus G	EO 45 MIC	RON						Discharge	Mater Co.	ntainerized	X Yes No	



age	_1_	of_	_1_	-
ate.	3/7/0	5		_

Well Nam						Interval						
	CTO 86-Site				Station 1	Elevation	GND_	TOC	Immiscible	Phases Pr	esent]yes
	o1990.0				Static V	/ater Level (fr	om TOC) /	Time 4.60/0	730 q.	<u>60/09</u> .	<u> </u>	10932
	tion Moffett					Water Level						
Sample D	ate 3/7	05			Referen	ce PointT	oc		PID Readin	gs (backg	round) <u>O</u> py)ka
Sampling	Personnel	D. HARRIS	ON		Referen	ce Elevation			PID Readin	g (TOC) _	000m11	
		M.RAMOS				levation			Notes		11	
					Well De	pth MEAS _)	<u>7.71</u> F	PTD	Feet of War	ter		
Sample I	D_86-S1-10					f Bottom of T						
Duplicate	ID_N/A				Depth to	Water (w/ T	ubing ın W	eli) <u>4,60</u>				
							PURGING					
							<u> </u>					
ı i		[1			Specific		Cumulative			l i	
	Discharge	Dissolved		!	j	Conduct.		Volume of Water	PID/OVA	Reading		
1	Rate ¹	Oxygen		EWORP	Temp.	(µmhos/cm	Turbidity	Removed/Purged			Depth to	
Time	(L/min)	(mg/L)	pН	(mV)	(°C)	at °C)	(NTU)	(Gailons)	Location	Value	Water ² (ft)	Comments
1327	-4	1,06	7.0	176	16.9	6 1095	8.6	-1			4.61	
1330	24	0.80	2.1	150	17.0	40981	7-0	. 3			4.62	
1333	.4	0.52	7.1	144	17.2	40 536	5.2	-5			4.42	
1536	.4	0.27	7.1	142	17.1	60289	3.3	.7			4.62	
1339	14	0.25	7.1	138	17.2	60376	3.9	.9			4.63	
1340	Coller	Samo	0			3-316			$\overline{}$			
7370	COMPA	2470	-		1							
			-		_				 	-		
		_	\vdash	-	├──				-	-		
-			-	-	├				 	-		
		_	├	ļ	ļ-			<u> </u>				
Notes:		l	L	<u> </u>	<u> </u>	L	L	L				
	a = 0,2 - 0,5 L/m	inute										
2 Drawdow	n shall be <0.33	foot										
SAMPLE	PARAMET	ERS										
	VOCs	D.MER	C .	$\overline{}$				I	T		T	
SAMPLE						L						
	46/m	.44		_				1	T		T	$\overline{}$
Notes:	7 cju	1757	<u>~</u>	1				1			<u> </u>	
1. Sample I	ate for VOCs an											
2. Sample i	ate for non-VOC	e enelysis = pur	ge rate :	0.2 - 0.5 L/r	minute							
Condition	of Well: G	ood										
Remarks												
	QUIPMENT											
	·						R10797		Number of		2X1LA	
	ture Meter_						R10797			1	X250mLP	
	Meter						R10797					
Spec. Et	ec. Cond. Me	terHYDR	OLAB		Serial I	Number#	R10797					
ORP Me	terH	YDROLAB			Serial i	Number#	R10797		Field Note	book <u>Pa</u>	6.7517	<u> </u>
D.O. Me	terH	DROLAB			Serial i	Number#	R10797					
	Probe SO				Serial Number #25582				Sample M	ethod <u>Lo</u>	w Flow	
	A MI				Serial	Number#	00320					
Pump_		EO-PUMP			Serial	Number	A0041					
Filter Ap		EO45 MK	RON						Discharge	Water Co	ntainerized	X Yas No



TETRATECH FW INC. LOW-FLOW GROUNDWATER **SAMPLING DATA SHEET**

age	1-	of.	1_	-
Date .	3/7/0	5_		

Well Nan	ne W1-15				Screen	Interval	4.4-14	.4				
Project	CTO 86-Site	1. R8/05			Station Elevation GND TOC Immiscible Phases Present Yes X No							
	o1990.0			_				Time 4.82/89/	10 4.	82/69	09 4.82	
	ation Moffett-					Water Level				,		7
	Date 3/1/					ce Point X		/	PID Readings (background) Onne			
	Personnel_		ON		Reference Elevation				PID Readir	a (TOC) (\00.0 T	-
Samping		M.RAMOS	Oil			levation			Notes	g (100) g	Jan	
		M.RAMOS	_			oth MEAS	276					
			· · · · · ·						reet or vva			
	D _86-S1-09			- 1		f Bottom of T						-
Duplicat	e ID <u>collect</u>	ms/msd			Depth to	Water (w/ T	ubing in W	ell) <u>4,87</u>				
						1	URGING					
					1							
						Specific		Cumulative			1	
	Discharge	Dissolved	l			Conduct.		Volume of Water	PID/OVA	Reading	, ,	ŀ
	Rate ¹	Oxygen	İ	EWORP	Temp.	(µmhos/cm	Turbidity	Removed/Purged			Depth to	l l
Time	(L/min)	(mg/L)	pΗ	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
1154	.4	8.54	6.8	4/3	35.8	16852	100	1			4.86	
017	.4	0.58	6.8	352	24.4	27736	72	. 3			4.81	
1120	-3	0.16	6.9	134	23.1	29210	41	15			4,87	
1123	1.4	0.70	4.9	44	21.4	30144		·	-		41.89	
1176	1.4	0.08		43	32.3	30544	14	.9			4.90	
11-7	17-7					30462					4.92	
1129	1			44	22./	30905		- 1. 1			7.12	
1130	Callect	Sample	₽		-					-		
		<u> </u>	├ ─	_								
									 		 	
	l		L	<u> </u>	1			I	L		i	
Notes 1 Purpers	åe = 0 2 - 0,5 L/m	leute										
	wn shall be <0.33											
SAMPLE	E PARAMETI	FRS										
	VOCs	D.MER	20						Τ	-	I	
SAMPLI		D.W.L.										
	,4	1.4				T		1	1			1
Notes:	7.1	1 (1		·		L						
	rate for VOCs an											
2 Sample	rate for non-VOC	s analysis = pur	ige rate i	02-0.5L/	minute							
Conditio	n of Well: 💪	cod										
Remarks	: Green	1 Turbic	wa	er								
		, , , , ,										
	QUIPMENT		_				040707			D-W	eval s	
	r			_			R10797		Number of	DOMES_		
	ature Meter_						R10797				3X250mLP	
	y Meter						R10797					
	lec. Cand. Me		OLAB		Serial		R10797			- Cu		
ORP Me	eter <u>H</u>	YDROLAB			Serial	Number#	R10797		Field Note	book <u>19</u>	5.74+	5
D.O.Ma	eter H	YDROLAB			Serial	Number	R10797					
	e ProbeSC				Serial	Number	25582		Sample M	ethod <u>La</u>	w Flow	
PID/OV	A MI	NI-RAE			Serial	Number	00320					
Pump_		EO-PUMP			Serial	Number	3A0041					
						_					and a law or other and	



TETRATECH PM/RRC. LOW-FLOW GROUNDWATER SAMPLING DATA SHEET

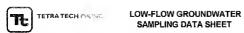
Page 1 of 1	
Date <u>3/7/05</u>	

Well Nan	ne W1-16				Screen	Interval	5.4-15	.4				
	CTO 86-Site				Station	Elevation	GND	TOC	Immiscible	Phases Pr	resent	Yes X No
	o. 1990.0				Static V	/ater Level (fr	om TOC) /	Time 7-10 / 093	8 71	0/095	9 7.10	11000
	ation _ Moffett-			_	Average	Water Level	(from TOC	7.10				
	Date 3/8								PID Readin	as (backa	round) 0 144	-
	Personnel_		ON						PID Reading (TOC) Oppu			
Camping		M.RAMOS				levation			Notes			
-					Well De	oth MEAS /	9.24 €					
Sample	ID <u>86-81-10</u> 7	7						4				
	e ID N/A							ell)				
жаршаа					Оорин			/				
	r :			г		· ·	PURGING					
	Discharge	Dissolved			_	Specific Conduct.		Cumulativa Volume of Water	PID/OVA	Reading	Depth to	
l	Rate ¹	Oxygen	۱	EWORP		(µmhos/cm		Removed/Purged	Location	Value	Water ² (ft)	Comments
Time	(L/min)	(mg/L)	pH (()	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	value	7./3	Comments
1610	-4	0.29	6,9	/20	33.8	335]_	4.7	1			7.15	
1613	.4	0.21	6.9		332	4920	5.6	15				
1614	.4	8.11	6.7	99	3/4	8514	4.9	.5			7.18	
1619		0.08	7.0	97	30,4	9232	5.1	.7			7.22	
1622	14	0.06	7.0	76	39.5	9471	4.0	٠٩			7.24	
lists	Collect	Sample	<u> </u>		Ļ		ļ					
			<u> </u>		<u> </u>							
											<u> </u>	
			<u></u>	L	<u> </u>							
					Ţ					_	L	
	te = 0.2 - 0 fi L/m vn shall be <0.33											
SAMPLI	E PARAMETI	ERS										
8	VOC's	D.MEF	C.		-							
SAMPLI	E RATE											
	4 c/m	.4 4	4			T					Ŧ T	
Notes 1 Sample 2 Sample Conditio	rate for VOCs and rate for non-VOCs	s analysis = pur	ge rate :	02 · 06 L/i	minute							
FIELDE	EQUIPMENT	•										
pH Meta	r	HYDROLA	B		Serial I	Number#	R10797		Number of	Bottles _	2X1IA	
Tempera	ature Meter	HYDROLA	B_		Serial I	Number_#	R10797				1X250ml.P	
	y Meter				Serial I	Number#	R10797					
	lec, Cond. Ma				Serial	Number#	R10797					
	etar H				Serial	Number #	R10797		Field Note	book_4	5. ROT	81
	D.O. Meter HYDROLAS					Number #	R10797				'	
	e ProbeSO						25582		Sample M	ethod _Lo	w Flow	
	A MI				Serial Number #00320							
	G						3A0041					
	paratus G		RON		_				Discharge	Water Co	ontainerized	X Yes No



age .	_1_0	of	1
ate _	3/7/05		

	and P												
Well Nar	ne W1-19			$\neg \neg$	Screen	Interval	14-19						
Project	CTO 86-Site	1, R8/05			Station	Elevation	GND	TOC .	Immiscible	Phases Pr	esent I	Tyes N	7 No
	io. <u>1990.0</u>				Static V	Vater Level (fr	om TOC)	Time 4.18/09.	22 4.	18/0923	3 4.18]Yes [7
	ation _Moffett				Average	Water Level	(from TOC	34.18				100	
Sample	Date 3/1/	กร						, <u></u>	PID Readin	os (backo	mund Ope	164	
	Personnel		ON			ce Elevation			PID Readings (background) OPAN PID Reading (TOC) OPAN				
		M.RAMOS			Static Elevation					Notes			
							LL 20 1	RPTD		ter			
Sample	D 86-S1-09	3				of Bottom of T							_
	eID N/A			_	Depth t	o Water (w/ T	ubing in W	(ell) 4.18					
_								/					
			_				URGING				,		
	Discharge Rate ¹	Dissolved Oxygen		Eh/ORP		Specific Conduct. (µmhos/cm	Turbidity	Cumulative Volume of Water Removed/Purged	PID/OVA		Depth to		
Time	(L/min)	(mg/L)	pН	(mV)	(°C)	at C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comm	ants
1250	.4	0.70	7.0	317	30.2	7-5434	1.5	ь			4.20		
1233	.4	0.62	7.0	251	29,8	11520	1.7	13			4.22		
1234	.4	0.17	7.0	245	29.0	12260	0.4	.5			4.24		
1239	.4	0.14	7.0	236	28.1	13450	0.6	-8			4.27		
1240	Collect	Sample											
L		1	<u> </u>						L				
			1										
			j										
					-								
											<u> </u>		
2 Onwdo	te = 02 - 0.5 t/m vn shall be <0.33 E PARAMET	foot											
	VOCs	D.MER	ec.	1		T			1			-T	
SAMPL								1				-	
	1 clm	.44	las										
Notes: 1. Sample 2. Sample Conditio	rate for VOCs an rate for non-VOC	alysis = 0.1 - 0.2 s analysis = pur 0.0€	2 L/minu ge rate :	02-0.5 <i>U</i> r	minute								
FIELD E	QUIPMENT												
	т	HYDROLAI	В		Serial	Number#	R10797		Number of	Bottles _	2X1LA		
	ature Meler_			_	Serial .	Number#	R10797			1	x250mLP		
	/ Meter				Serial	Number#	R10797						
	lec. Cond. Me				Serial	Number#	R10797						
	eter H				Serial	Number #	R10797		Field Note	book Y	75		
	der H					Number#	R10797			10			
	e ProbeSC				Serial	Number #	25582		Sample M	ethod <u>Lov</u>	w Flow		_
	AMI				Serial	Number#	00320						
Pump_		EO-PUMP			Serial	NumberE	A0041						
P.41 - A	onoratue (150 45 MIC	DON						Dicebarge	Winter Co.	ntainerized	X Yes	TIME



age	_1_	of_	1	_
ate .	3/7/0)5		

			_									
Well Nan	ne W1-22			_ 1	Screen	Interval	N/A					
Project	CTO 86-Site	1. R8/05			Station :	Elevation	GND	TOC .	Immiscible	Phases Po	esent	Yes 📈 No
Project N	o. 1990 0	86E			Static V	/ater Level (fr	om TOC)	Time 2.95/04	12 2.	95/099	13 295	
	ation Moffett					Water Level				7		
	Date 3/2					ce Point _ T		7.0	PID Readin	cs (backo	round) 🕰 🗘	<u> </u>
	Personnel _		ON			ce Elevation			PID Readin	(COCT) o	0000	
ou.np.n.g		M.RAMOS		_		levation			Notes	8(.00)_	11/2-	
		W. To Man O C		_		pth MEAS 6	hu :	RPTD		tor.		
Sample I	D 86-S1-10	2				f Bottom of T			1 661 01 770			
	e ID N/A			-				(al) 2,45				
Dupacas	e in HAV			***	Берити	o water (w/ r	ubing in ve	(III) - 4-1-4-3				
						- 1	PURGING					
	Discharge	Dissolved				Specific Conduct.		Cumulative Volume of Water	PID/OVA	Reading		
i	Rate ¹	Oxygen		ENORP	Temp.	(µmhos/cm	Turbidity	Removed/Purged			Depth to	
Time	(L/min)	(mg/L)	p∺	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments
O830.	,4	Ø	63	191	14.6	18.2	450	0/			2.99	
0853	14	Ø	6.4	175	14.9	364	327	.3.			3.04	
0856	,4	Ø	6.4	160	15.3	2192	150	.5	I		3.07	
0539	.4	Ø	6.3	150	15.5	2108	95	.7			3.08	
5842	.4	Ø	4.7	148	15.7	5213	87	. 7			3.09	
0845	.4	Ø	6.4	1147	15.9	7246	82.8	1.1			3.10	
0848	.4	0,09	67	138	16.4	9650	94	1.3			3.1/	
0850	Caller	Sample		1,50	1		- ''					
- 0 10	LCIIVC	Serence	\vdash	 	┼──		-			 		
		1	 		+		 		 			
		_	 -		1			-				
Notes:		·	1	1	L			<u> </u>		·		
	to = 0.2 - 0.5 L/m											
2. Drawdov	vn shall be <0.33	foot										
SAMPLE	PARAMET											
2x	SVOC's	1xD.ME	RC.						<u> </u>			
SAMPLE	ERATE											
	4 6/04	.46	la									
2. Sample	rate for VOCs an rate for non-VOC n of Well:	s analysis = pur			minute							
Remarks	s. Brown	white	sli	jut H2	Sodor							
FIELD E	QUIPMENT											
pH Mete	r	HYDROLA	В		Serial I	Number#	R10797		Number of	Bottles_	2x1LA	
	ature Meter_	HYDROLA	AB		Serial I	Number#	R10797				1x250mLP	
	Meter	HYDRO			Serial I	Number #	R10797					
Spec. El	lec. Cond. Me	ter HYDR	OLAB		Serial I	Number #	R10797					
		YDROLAB			Senal I	Number#	R10797		Field Note	book Pa	. 78	
		/DROLAB				_	R10797				,	
	Probe SC						25582		Sample M	ethod Lov	v Flow	
		NI-RAE					00320					
Pump		EO-PUMP					3A0041					
		EO45 MIC	RON						Discharge	Water Co	ntainerized	X Yes No



Page1 of1	
Date 3/7/05	

Well Nan					Screen	Interval	n/a				_	
Project _	CTO 86-Site	1, R8/05			Station :	Elevation	GND		Immiscible	Phașes Pr	esent	Yes (No 10986
Project N	o. <u>1990.0</u>	86E			Static V	Vater Level (fr	om TQC) /	Time 5.60/093	4_50	50/093	5.60	10976
Well Loca	ation Moffett	- Site 1			Average	Water Level	(from TOC					·F
Sample I	Date				Referen	ce PointT	oc		PID Readin	gs (backg	round) OAS	
Sampling	Personnel_	D. HARRIS	ON		Referen	ce Elevation			PID Readin	g (TOC)	Opp	
		M.RAMOS				levation			Notes			
						ph MEAS		RPTD <u>6,0</u>	Feet of Wa	ler		
Sample I	D_86-S1-09	9			Depth o	f Bottom of T	ubing4	, 5.85				
Duplicat	e ID_ <u>N/A</u>				Depth to	o Water (w/ T	ubing in W	ell) + 5,65	5,60			
						-	PURGING	- 194			-	
							UKGIIVG					
		ł	l			Specific						
	Discharge	Dissolved			1	Conduct.		Cumulative Volume of Water	PID/OVA	Reading		
	Rate ¹	Oxygen		EN/ORP	Тетр.	(umhos/cm	Turbidity	Removed/Purged			Depth to	1
Time	(L/min)	(mg/L)	ρН	(mV)	(°C)	at°C)	(NTU)	(Gallons)	Location	Value	Water2 (ft)	Comments
1415	·31/m	0.63	7.1	171	282	16.4	1000t	. 1			5,65	
1418	,3,	15.0	2.1	151	26.9	19.5	826	•2			5.76	
1421	Trench	Ran d	ki					.25			5.84	
			17									
			T									
					1							
			†	1	1							
			\vdash		1							
	l	·		 								
			t									
Notes.		·		·				l				
	te = 0.2 • 0.5 L/m vn shatt be <0.33											
	PARAMET											
	SVOC6	D.MEF	₹C.	L		L		l			L	
SAMPLI	E RATE			,					_			
Notes:		<u> </u>		1					L		l	
	rate for VOCs and	alysis = 0 1 - 0 2	2 Liminu	te								
2. Sample	rate for non-VOC	s analysis = pui	ge nate :	02-0.5 LA	minute							
Condition	n of Well: G	ood .										
Remarks	: Brown	twine 1	Nate	(- S	1144	Has odos						
	ŧ				9.							
	QUIPMENT						D. (0707			D-W	OVAL A	
	r						R10797		Number of		X250mLP	
	Temperature Meter <u>HYDROLAB</u>						R10797			1	X250mLP	
	Meter					_	R10797					
	lec. Cond. Me		OLAB				R10797		-			
	eterH						R10797		Field Note	1000K 1-6	-76	
	eterH)						R10797					
	Probe SO						25582		Sample M	ethod <u>Lo</u>	w Flow	
	AM						00320					
	G				Serial	Number	3A0041					ы. П.:
Fifter An	eparatus G	SEO45 MIC	RON						Discharge	Water Co	ntainerized	X Yes No



Page1	of1
Date _3/7/05	5

Well Nan	ne W1-24				Screen	Interval	6-16							
	CTO 86-Site				Station Elevation GND TOC Immiscible Phases Present Yes V No									
Project N	o. 1990.0	86E			Static V	/ater Level (fr	om TOC)/	Time 6.37/093	4 6.	38/095	5 6.3	7/095%		
Well Loca	ation Moffett	- Site 1				Water Level				,				
	Date 3/9					ice PointT		, uj	PID Readin	as (backa)	round) O			
	Personnel		ON			ce Elevation			PID Reading (TOC)					
	_	M.RAMOS				levation								
				_			078 8	RPTD						
Sample I	ID 86-S1-10	6				f Battom of T								
1 .	eID N/A	P		_	Depth to	Water (w/T	ubing in M	on 1.38						
Барисас	- 10				Dopin			GII) LA						
			1		_		URGING							
	İ	1]	l		Casalfia								
	Disabases	l	i .			Specific Conduct.		Cumulative	PID/OVA	Reading				
	Discharge Rate ¹	Dissolved		Eh/ORP	Temp.	(µmhos/cm	Turbidity	Volume of Water Removed/Purged	1 12/01//		Depth to			
Time	(L/min)	Oxygen (mg/l)	ын	(mV)	(°C)	at °C)	(NTU)	(Gallons)	Location	Value	Water ² (ft)	Comments		
	(Umiti)	(mg/L)	7.0	131	24.9		4,5		Location	Voice	6.40	Commence		
1500		0.30				2460		- !		ļ		-		
1503	.4	0.76	6.8	119	26.7	5210	3,2	• 3			4.42			
1506	.4	2.22	6.8	7/0	35.1	7553	2.9	17	-		6.43			
150	64,	1,30	6.8	116	250	8760	5,4	- 17		_	6.45			
1512	.4	0.32	6.8	117	24.1	10238	4.6	.7		-	6.4%			
1515	1.4	0.30	6.8	110	24.2	10377	5.0	1-1			6.49			
1518	1.4	0.28	6.8	12/	24.1	10480	2.5	1.3			6.50			
1520	Glost	Sauple	ļ											
		<u> </u>	_	1	1				<u> </u>					
			<u> </u>		1									
	<u> </u>				L	<u> </u>				<u> </u>				
Notes:	te = 0,2 - 0 5 Um	uneto												
	vn shall be <0.33													
CAMDI 1	E PARAMET	EDe												
_	VOC's	D.MEF	20					T			ľ			
SAMPLI		DIME		·				L						
			7	_							г	T		
Notes.	4 4m	, y L	(M	L		L			1		-			
1. Sample	rate for VOCs an													
2 Sample	rate for non-VOC	s analysis = pu	ge rate :	0.2-0.5 L/s	minute									
Conditio	n of Welt:	Good												
Remarks	s: <u>Green</u>	twaild	1/5	light	14 J.S.	color.								
	QUIPMENT		_				D40707		Managhan ad	TI-MI	2x1LA			
	r	HYDROLA					R10797		Number of	Bulles_	2x250mLP			
	ature Meter _			_			R10797				ZXZOUNILP			
	/ Meter						R10797							
	iec. Cond. Me		OLAB				R10797							
	eter <u>H</u>						R10797		Field Note	book				
		YDROLAB					R10797							
Interface	e Probe <u>SC</u>	LINST			Serial	-	25582		Sample M	ethod _لويا	v Flow			
PID/OV	AM	NI-RAE			Serial	Number#	00320							
Pump_	G	EO-PUMP			Serial	Number	A0041_							
Filter Ap	oparatus	EO45 MIC	RON						Discharge	Water Co	ntainarized	X Yes No		

APPENDIX B

ANALYTICAL SUMMARY TABLES AND STATISTICAL EVALUATION TABLES

LIST OF APPENDIX B TABLES

Semiannual Sampling

Table B-1	A pril 2005 V alidated A nalytical Results, Site 1 Landfill
Table B-2	October 2005 Validated Analytical Results, Site 1 Landfill

Supplemental Sampling

Table B-3 January 2005 A nalytical Results for Dissolved Mercury and Semivolatile Organic Compounds, Site 1

Table B-4 March 2005 A nalytical Results for Dissolved Mercury and Semivolatile Organic Compounds, Site 1

Statistical Evaluation

 $Table\ B\text{-}5 \qquad \textbf{Statistical}\ Evaluation\ Summary\ -\ Dissolved\ Metals$

Table B-6 Statistical Evaluation Summary - Pesticides

SEMIANNUAL SAMPLING

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT APRIL 2005 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL FORMER NAS MOFFETT FIELD

	86-S1-108	86-S1-109	86-S1-110	86-S1-112	86-S1-113	86-S1-111	86-S1-115	86-S1-116	86-S1-117	86-SI-118	86-S1-119	86-S1-120
MP	W1-1R	WI-15	WI-19	WI-14	W1-12R	W1-12R (DUP)	W1-22 ^a	W1-5	W1-8	W1-8 (DUP)	W1-21	W1-16
	4/11/05	4/11/05	4/11/05	4/11/05	4/12/05	4/12/05	4/12/05	4/12/05	4/12/05	4/12/05	4/13/05	4/13/05
Dissolved Metals (µ g/L)	EPA Method	200.8										
Arsenic	0.834 J	4.61 J	2.2J	4.54J	1.55 J	1.63 J	2.76J	1.05J	2.09 J	1.77 J	6.35 J	5.43 J
Banum	73.3	_ 145J _	83.8	184	74.3	73.1J	208	507	130	130J	218	211
Cobalt	13.5	1.91 J	9.93	6.01	4.67	6.37	4.33	1 28	2.74	2.4 J	6.29	4.99
Copper	0.602 J	0 205 J	0.814 J	0 225 J	0 528 J	0.573 J	0.831 J	0.142 J	0 329 J	0.434 J	0.243 J	0.214 J
VOCs (μg/L)	EPA Method	8260B										
m,p-Xylene	1 U	1 U	1 U	1U	1 U	1U	1U	1U	1U	1U	1U	1U
Trichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chlonde	1 U	1 U	1 U	1 U	1 U	1U	1U	1U	1U	1U	1U	1U
Pesticides (μ g/L)	EPA Method	8061A										
beta-8HC	0.047 U	0.048 U	0.047 U	0.047 U	0.053 U	0.047 U	0.047 U	0.047 U	0.048 U	0.047 U	0.048 U	0.048 U
Heptachlor	0.047 U	0.048 U	0.047 U	0.047 U	0.053 U	0.047 U	0.047 U	1.2	0.048 U	0.047 U	0.048 U	0.048 U
SVOCs (μg/L)	EPA Method	8270C										
2,4,6-Trichlorophenol	9.4 U	9.4 U	95U	94U	9.4 U	9.7 U	9.4 U	9.5 U	9.5 U	9.4 U	9.4 U	9.6 U
2-Methylphenol	94U	9.4 U	95 U	9.4 U	9.4 U	9.7 U	9.4 U	9.5 U	9.5 U	9.4 U	9.4 U	9.6 U

Notes

Shading indicates concentration above the calculated concentration limit.

* - Well W1-22 is a collection trench well and not representative of groundwater at Site 1

Abbreviations and Acronyms µg/L - micrograms per liter

дду. – micrograms per inter 8 HC – benzene bevachlonde

DUP - duplicate sample

EPA - United States Environmental Protection Agency

J - estimated value

MP – monitoring parameter NAS – Naval Air Station

SVOC - semivolable organic compound

U - analyte not detected above project reporting limit

VOC - volatile organic compound

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT OCTOBER 2005 VALIDATED ANALYTICAL RESULTS, SITE 1 LANDFILL FORMER NAS MOFFETT FIELD

	1											
	86-S1-124	86-S1-125	86-S1-126	86-S1-128	86-S1-129	86-S1-130	86-S1-131	86-S1-132	86-S1-133	86-S1-134	86-S1-135	86-S1-136
MP	WI-IR	WI-15	WI-19	WI-14	W1-12R	W1-22 ^a	W1-5	W1-5 (DUP)	W1-8	W1-8 (DUP)	W1-24	W1-16
	10/4/05	10/4/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05
Dissolved Metals (μ g/L)	EPA Method	200.8										
Arsenic	1.61	4.47	2.97	5.28	2.53	1.93	0.95	1.95J	3.86	4.33 J	7.25	7.72
Banum	107	176	99.9	159	72	1260	576	556J	150	150J	398	458
Cobalt	7.69 J	3.32 J	9.69 J	8.34 J	5.25 J	0.36 J	1.73 J	2.99 J	2.27 J	2.28 J	287 J	728J
Copper	2.64 J	0.1 J	0.494 J	0.075 J	0 205 J	0.135 J	0.031 J	0.06J	0.699J	0 093 J	0.14J	0.125 J
VOCs (μg/L)	EPA Method	8260B										
m,p-Xylene	1 U	1 U	1 U	1 U	1 Ü	1 Ü	1 Ü	1U	1 U	1 U	1U	1 U
Trichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl chlonde	1 U	1U	1 U	1 U	1 U	1 U	1 U	1U	1 U	1U	1U	1 U
Pesticides (µ g/L)	EPA Method	8081A										
beta-8HC	0.048 U	0.048 U	0.047 U	0.047 U	0.049 U	0.25	0.05 U	0 048 U	0.048 U	0.047 U	0.05 U	0.049 U
Heptachlor	0.048 U	0.048 U	0.047 U	0.047 U	0.02 J	0.049 U	0.05 U	0 048 U	0.048 U	0.047 U	0.05 U	0.049 U
SVOCs (μg/L)	EPA Method	8270C										
2,4,6-Trichlorophenol	9.4 U	9.4 U	10 U	9.5 U	9.4 U	10 U	9.4 U	10 U	9.4 U	9.7 U	9.4 U	9.5 U
2-Methylphenol	9.4 U	9.4 U	10 U	9.5 U	9.4 U	10 U	9.4 U	10 U	9.4 U	9.7 U	9.4 U	9.5 U
Alutum												

Notes

Shading indicates concentration above the calculated concentration limit.

* - Well W1-22 is a collection trench well and not representative of groundwater at Site 1

Abbreviations and Acronyns

- µg/L micrograms per litet
- 8 HC benzene hexachlonde DUP - duplicate sample
- EPA United States Environmental Protection Agency
- J estimated value
- MP monitoring parameter
- NAS Naval Air Station
- SVOC semivolable organic compound
- U analyte not detected above project reporting limit
- VOC volatile organic compound

SUPPLEMENTAL SAMPLING

TABLE B-3

DRAFT SITE I LANDFILL 2005 ANNUAL REPORT JANUARY 2005 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1 FORMER NAS MOFFETT FIELD

	86-51-081	86-S1-085	86-S1-086	86-S1-088	86-S1-089	86-S1-090W	86-S1-091	86·S1-092	86-51-093	86-51-091	86-S1-095
coc	W1-IR	W1-15	W1-19	W1-14	W1-12R	W1-12R (DUP)	W1-22 ^a	W1-5	W1-8	WI-21	W1-16
	1/31/05	2/1/05	2/1/05	2/1/05	2/1/05	2/1/05	2/2/05	2/2/05	2/2/05	2/2/05	2/2/05
Dissolved Metals (µ g/L)	EPA Method	7470A									
Mercury	8U	8U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
SVOCs (μg/L)	EPA Method	8270C									
1,1'-Biphenyl	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4 U	9.4 U	9.4 U	94U	94U	94U	9.4 U	9.4 U	94U	9.4 U
2,4,5-Trichlorophenol	9.4 U	9.4 U	9.4 U	9.4 U	94U	94U	94 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	9.4 U	9.4 U	9.4 U	9.4 U	94U	94U	94U	9.4 U	9.4 U	94U	9.4 U
2,4-Dichlorophenol	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	9.4 U	9.4 U	9.4 U	9.4 U	94U	94U	94U	9.4 U	9.4 U	94U	9.4 U
2,4-Dmitrophenol	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
2,4-Dmitrotoluene	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
2,6-Dmitrotoluene	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
2-Chloronaphthalene	9.4 U	9.4 U	9.4 U	9.4 U	94U	94U	94U	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	9.4 U	9.4 UJ	9.4 U	9.4 U	94U	94U	94U	9.4 U	9.4 U	94U	9.4 U
2-Methylnaphthalene	9.4 U	9.4 U	9.4 U	9.4 U	94U	94 U	94U	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylphenol	9.4 U	9.4 U	9.4 U	9.4 U	94U	94U	9 4 U	9.4 U	9.4 U	9 4 U	9.4 U
2-Netroendine	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
2-Nitrophenol	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	9.4 U	9.4 U	9.4 U	9.4 U	94 U	94 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
3/4-Methylphenol	9.4 U	9.4 U	9.4 U	9.4 U	94U	9.4 U	94U	9.4 U	9.4 U	9.4 U	9.4 U
3-Nitroandine	9.4 U	9.4 U	9.4 U	9.4 U	94U	94 U	94 U	9.4 U	9.4 U	9.4 U	9.4 U
4,6-Dmitro-2-methylphenol	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
4-Bromophenyl-phenylether	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
4-Chloro-3-methylphenol	9.4 U	9.4 U	9.4 U	9.4 U	94U	94U	94 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloroaniline	9.4 U	9.4 U	9.4 U	9.4 U	94 U	9.4 U	94 U	9.4 U	9.4 U	94 U	9.4 U
4-Chlorophenyl-phenylether	9.4 U	9.4 U	9.4 U	9.4 U	94U	94U	94U	9.4 U	9.4 U	9.4 U	9.4 U
4-Natroantline	9.4 U	9.4 U	9.4 U	9.4 U	94 U	94U	94 U	9.4 U	9.4 U	94 U	9.4 U
4-Nitrophenol	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
Acenaphthene	9.4 U	9.4 U	9.4 U	9.4 U	94U	94U	94U	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	9.4 U	9.4 U	9.4 U	9.4 U	94U	94U	94 U	9.4 U	9.4 U	9.4 U	9.4 U
Acetophenone	9.4 U	9.4 U	9.4 U	9.4 U	94U	94U	94 U	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	9.4 U	9.4 U	9.4 U	9.4 U	94U	9.4 U	9.4 U	9.4 U	9.4 U	94 U	9.4 U
Atmzine	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U

TABLE B-3

DRAFT SITE I LANDFILL 2005 ANNUAL REPORT JANUARY 2005 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1 FORMER NAS MOFFETT FIELD

	86-51-081	86-SI-085	86-S1-086	86-51-088	86-51-089	86-S1-090W	86-51-091	86-S1-092	86-51-093	86-51-091	86-S1-095
coc	W1-IR	W1-15	W1-19	W1-14	W1-12R	W1-12R (DUP)	W1-22 ^a	W1-5	W1-8	WI-21	W1-16
	1/31/05	2/1/05	2/1/05	2/1/05	2/1/05	2/1/05	2/2/05	2/2/05	2/2/05	2/2/05	2/2/05
Benzaldehyde	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Benzo(a)anthracene	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Benzo(a)pyrene	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Benzo(b)fluoranthene	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Benzo(g,h,ı)perylene	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Benzo(k)fluoranthene	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
bis(2-Chloroethoxy)methane	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
Butylbenzylphthalate	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Caprolactam	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Carbazole	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Chrysene	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Dibenzo(a,h)anthracene	9.4 U	9.4 U	9.4 U	9.4 U	9.4U	9.4 U					
Dibenzofuran	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Diethylphthalate	19 U	19 U	19 U	19 U	19 U	19 U					
Dimethylphthalate	19 U	19 U	19 U	19 U	19 U	19 U					
dı-n-Butylphthalate	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
di-n-Octylphthalate	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Fluoranthene	9.4 U	9.4U	9.4 U	9.4 U	9.4U	9.4 U					
Fluorene	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Hexachlorobenzene	19 U	19 U	19 U	19 U	19 U	19 U					
Hexachlorocyclopentadiene	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Indeno(1,2,3-cd)pyrene	9.4 U	9.4U	9.4 U	9.4 U	9.4 U	9.4 U					
Isophorone	9.4 U	9.4U	9.4 U	9.4 U	9.4U	9.4 U					
Nitrobenzene	9.4 U	9.4U	9.4 U	9.4 U	9.4U	9.4 U					
n-Nitroso-di-n-propylamine	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
n-Nitrosodiphenylamine	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Pentachlorophenol	19 U	19 U	19 U	19 U	19 U	19 U					
Phenanthrene	19 U	19 U	19 U	19 U	19 U	19 U					
Phenol	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U					
Pyrene	9.4 U	9.4U	9.4 U	9.4 U	9.4 U	9.4 U					

TABLE B-3

DRAFT SITE I LANDFILL 2005 ANNUAL REPORT JANUARY 2005 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SENIVOLATILE ORGANIC COMPOUNDS, SITE 1 FORMER NAS MOFFETT FIELD

Notes

- Well W1-22 is a collection trench well not representative of groundwater at Site 1

Abbreviations and Acronyms ua/L - micrograms per liter

COC - constituent of concern

DUP - duplicate sample

EPA - United States Environmental Protection Agency

NAS - Naval Air Station

SVOC - semivolable organic compound

U - analyte not detected above project reporting limit

TABLE B-4

DRAFT SITE I LANDFILL 2005 ANNUAL REPORT MARCH 2005 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1 FORMER NAS NOFFETT FIELD

	86-SI-096	86-S1-097	86-S1-098	86-SI-100	86-S1-101	86-SI-102	86-S1-10B	86-S1-101	86-S1-105	86-S1-106	86-SI-107
coc	W1-IR	WI-15	W1-19	W1-14	W1-12R	WI-22 ^a	W1-5	W1-5 (DUP)	W1-8	WI-21	W1-16
	3/7/05	3/7/05	3/7/05	3/7/05	3/7/05	3/8/05	3/8/05	3/8/05	3/8/05	3/8/05	3/8/05
Dissolved Metals (µ g/L)	EPA Method	7470A									
Mercany	4U	4U	4U	4U	4U	4U	4U	4U	4U	4U	4U
SVOCs (μg/L)	EPA Method	8270C									
1,1'-Biphenyl	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane)	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
2,4,5-Trichlorophenol	9.4 U	94U	9.4 U	9.4 U	95 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
2,4,6-Trichlorophenol	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
2,4-Dichlorophenol	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
2,4-Dimethylphenol	9.4 U	94 U	9.4 U	9.4 U	95 U	9.7 U	9.4 U	9.4 U	94 U	9.4 U	9.4 U
2,4-Dinitrophenol	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
2,4-Dmitrotoluene	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
2,6-Dinitrotoluene	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
2-Chloronaphthalene	9.4 U	94U	9.4 U	9.4 U	95U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
2-Chlorophenol	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
2-Methylnaphthalene	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
2-Methylphenol	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
2-Netroandine	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
2-Nitrophenol	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
3,3'-Dichloroberzidine	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 UJ	9.4 U	9.4 U	94U	9.4 U	9.4 U
3/4-Methylphenol	9.4 U	94U	9.4 U	9.4 U	95 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
3-Nitroaniline	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
4,6-Dmitro-2-methylphenol	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
4-Bromophenyl-phenylether	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
4-Chloro-3-methylphenol	9.4 U	94U	9.4 U	9.4 U	95 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
4-Chloroaniline	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94 U	9.4 U	9.4 U
4-Chlorophenyl-phenylether	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
4-Nitroaniline	9.4 U	94U	9.4 U	9.4 U	95 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
4-Nitrophenol	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U
Acenaphthene	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
Acenaphthylene	9.4 U	94 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94 U	9.4 U	9.4 U
Acetophenone	9.4 U	94U	9.4 U	9.4 U	95 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
Anthracene	9.4 U	94U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	94U	9.4 U	9.4 U
Atrazine	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U	19 U

TABLE B-4

DRAFT STE 1 LANDELL 2005 ANNUAL REPORT MARCH 2005 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1 FORMER NAS MOFFETT FIELD

	86-SI-096	86-S1-097	86-S1-098	86-SI-100	86-51-101	86-SI-102	86-S1-103	86-S1-104	86-S1-105	86-51-106	86-SI-107
coc	W1-IR	WI-15	W1-19	W1-14	W1-12R	WI-22 ^a	W1-5	W1-5 (DUP)	W1-8	WI-21	W1-16
	3/7/05	3/7/05	3/7/05	3/7/05	3/7/05	3/8/05	3/8/05	3/8/05	3/8/05	3/8/05	3/8/05
Benzaldebyde	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 UJ	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Berzo(g,h,i)perylene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4U	9.4 U	9.4 U
Benzo(k)fluoranthene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate	19 U	19 U	19 U	19 U	19 U	19 UJ	19 U	19 U	19 U	19 U	19 U
Butylbenzylphthalate	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 UJ	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Caprolactam	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Carbazole	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 UJ	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenzo(a,h)anthracene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenzofuran	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4U	9.4 U	9.4 U
Diethylphthalate	19 U	19 U	19 U	19 U	19 U	19 U					
Dimethylphthalate	19 U	19 U	19 U	19 U	19 U	19 U					
di-n-Butylphthalate	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
di-n-Octylphthalate	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluoranthene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4U	9.4 U	9.4 U
Hexachlorobenzene	19 U	19 U	19 U	19 U	19 U	19 U					
Hexachlorocyclopentadiene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Nitrobenzene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
n-Nitroso-di-n-propylamine	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
n-Nitrosodiphenylamine	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4U	9.4 U	9.4 U
Pentachlorophenol	19 U	19 U	19 U	19 U	19 U	19 U					
Phenanthrene	19 U	19 U	19 U	19 U	19 U	19 U					
Phenol	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	9.4 U	9.4 U	9.4 U	9.4 U	9.5 U	9.7 UJ	9.4 U	9.4 U	9.4U	9.4 U	9.4 U

TABLE B-4

DRAFT SITE I LANDRILL 2005 ANNUAL REPORT MARCH 2005 ANALYTICAL RESULTS FOR DISSOLVED MERCURY AND SEMIVOLATILE ORGANIC COMPOUNDS, SITE 1 FORMER NAS MOFFETT FIELD

Notes

" - Well W1-22 is a collection trench well not representative of groundwater at Site 1

Abbreviations and Acronyms:

 $\mu g/L$ – micrograms per liter

COC - constituent of concern

DUP - duplicate sample

EPA - United States Environmental Protection Agency

NAS - Naval Air Station SVOC - semivolatile organic compound

U - analyte not detected above project reporting limit

U] - analyte not detected above the estimated reporting limit

STATISTICAL EVALUATION

TABLE B-5 Page 1 of 2

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT STATISTICAL EVALUATION SUMMARY - DISSOLVED METALS APRIL 2005 MONITORING SUMMARY

FORMER NAS MOFFETT FIELD

Date	Sample Type	Well	Gradient	Analyte	Conc.	CCL (ug/L)	Less Than Historical Background	Maximum Historical Background	Track for 2 Out of 3 Exceed.	Comment
04/12/05	REG	W1-5	Upgrad.	Banum	507	40		N/A	No	Location is a background well
04/12/05	REG	W1-8	Upgrad.	Barium	130	40		N/A	No	Location is a background well
04/12/05	FD	W1-8	Upgrad.	Banum	130 J	40	N/A	N/A	No	Location is a background well
04/12/05	REG	W1-12R	Upgrad.	Barium	74.3	40	N/A	N/A	No	Location is a background well
04/12/05	FD	W1-12R	Upgrad.	Barium	73.4J	40	N/A	N/A	No	Location is a background well
04/11/05	REG	W1-14	Downgrd.	Barium	184	40	Yes	W1-5	No	Less than historical background
								693 µg/L		
								7/16/03		
04/11/05	REG	W1-15	Downgrd.	Barium	145 J	40	Yes	W1-5	No	Less than historical background
								693 µg/L		
								7/16/03		
04/13/05	REG	W1-16	Downgrd.	Barium	244	40	Yes	W1-5	No	Less than historical background
								693 µg/L		
								7/16/03		
04/11/05	REG	W1-19	Downgrd.	Barium	83.8	40	Yes	W1-5	No	Less than historical background
								693 µg/L		
								7/16/03		
04/11/05	REG	W1-1R	Downgrd.	Barium	73.3	40	Yes	W1-5	No	Less than historical background
								693 µg/L		
								7/16/03		
04/13/05	REG	W1-24	Downgrd.	Barium	218	40	Yes	W1-5	No	Less than historical background
								693 µg/L		
	1				l		1	7/16/03	l	

TABLE B-5 Page 2 of 2

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT STATISTICAL EVALUATION SUMMARY - DISSOLVED METALS OCTOBER 2005 MONITORING SUMMARY

FORMER NAS MOFFETT FIELD

Date	Sample Type	Well	Gradient	Analyte	Conc. (µg/L)	CCL (µg/L)	Less Than Historical Background	Maximum Historical Background	Track for 2 Out of 3 Exceed.	Comment
10/06/05	REG	W1-5	Upgrad.	Banum	576			N/A	No	Location is a background well
10/06/05	FD	W1-5	Upgrad.	Barium	556 J	40	N/A	N/A	No	Location is a background well
10/06/05	REG	W1-8	Upgrad.	Banum	150			N/A	No	Location is a background well
10/06/05	FD	W1-8	Upgrad.	Barium	150 J	40	N/A	N/A	No	Location is a background well
10/06/05	REG	W1-12R	Upgrad.	Banum	72	40	N/A	N/A	No	Location is a background well
10/06/05	REG	W1-14	Downgrd.	Barium	159	40	Yes	W1-5	No	Less than historical background
								693 µg/L		
								7/16/03		
10/04/05	REG	W1-15	Downgrd.	Barium	176	40	Yes	W1-5	No	Less than historical background
								693 µg/L		
								7/16/03		
10/06/05	REG	W1-16	Downgrd.	Barium	458	40	Yes	W1-5	No	Less than historical background
								693 µg/L		
								7/16/03		
10/06/05	REG	W1-19	Downgrd.	Barium	99.9	40	Yes	W1-5	No	Less than historical background
								693 µg/L		
								7/16/03		
10/04/05	REG	W1-1R	Downgrd.	Barium	107	40	Yes	W1-5	No	Less than historical background
								693 µg/L		
								7/16/03	l	
10/06/05	REG	W1-24	Downgrd.	Barium	398	40	Yes	W1-5	No	Less than historical background
						l		693 µg/L	l	
ı	I	I	1		I	l		7/16/02	I	

Abbreviations and Acronyms

μg/L - micrograms per liter Exceed. - exceedance NAS - Naval Air Station CCL - calculated concentration limit FD - field duplicate Upgrad. - npgradient Conc. - concentration J - estimated value REG - regular sample

Downgrd. - downgradient N/A - not applicable TABLE B-6 Page 1 of 2

DRAFT SITE I LANDFILL 2005 ANNUAL REPORT STATISTICAL EVALUATION SUMMARY - PESTICIDES APRIL 2005 MONITORING SUMMARY FORMER NAS MOFFETT FIELD

Date	Sample Type	Well	Gradient	Analyte	Conc. (µg/L)		Less Than Historical Background	Maximum Historical Background	Track for 2 Out of 3 Exceed.	
4/12/2005	REG	W1-5	Upgrad.	Heptachlor	1.2	0.36	N/A	N/A	No	Location is a background well

TABLE B-6 Page 2 of 2

DRAFT SITE I LANDFILL 2005 ANNUAL REPORT STATISTICAL EVALUATION SUMMARY - PESTICIDES OCTOBER 2005 MONITORING SUMMARY FORMER NAS MOFFETT FIELD

Date	Sample Type	Well	Gradient	Analyte	CCL (µg/L)	Maximum Historical Background	Track for 2 Out of 3 Exceed.	Comment
				No exceedances reported				

Abbreviations and Acronyms:

μg/L - micrograms per liter

 $CCL-calculated\ concentration\ limit$

Conc. - concentration Upgrad. - upgradient Exceed. - exceedance N/A - not applicable

NAS - Naval Air Station REG - regular sample

APPENDIX C ANALYTICAL DATA VALIDATION PACKAGES (Provided on CD only)

NUMBER 10315 CHAIN-OF-CUSTODY RECORD

3 SEAR PRID DEMIN Project Information Do not submit to Laboratory Section SAMPI ING COMMENT LOCATION 11-115 VIII AS POST SAMPLE CONDITION: LINTACT BROKEN COMMENTS FMAX 110950 ABORATORY NAME PORTABORATORY ABORATORY ID 20% SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) ANALYSES REQUIRED BROKEN LABORATORY INSTRUCTIONS/COMMENTS INTACL COMPOSITE DESCRIPTION TEMPERA TURE: OULER SEAL: 580 18 1 FVE 356 - 356 PROJECT CONTACT PHONE NUMBER UNTABLE 10 d PLRCHASE ORDER NO RECTUVED BY (Signature) ECLIVED BY (Signature) (PCEIVED BY (Signature) PROJECT NO VIRBILL NI MRER 2001 TOUR 15.90 0810 State of ANYONO UMPANY 129165 30-1-2 COLLECTED ATT. IMI ME 3140 SEC - 17 - 28 480-18-984 SAMPLE GO LEL NOLINHEE BY (Square) FLINQL'NHED BY CS graduces LUNOLISHED BY SAGATAC PROFETIOLATION ROSE LUNIAL CAFAN CAPPANT OMPANY



1835 tV 205th Shear Tomorida, CA 9050 Tail (110) 618-6589 Faik (110) 618-6589

Date: 03-03-2005 FMAX Batch No.: 058011

Attri Lynn Jefferson

Totra Tech FW, Inc. 1940 F heere Ave, Sulie 200 Sunte Ana CA 92705

Subject: Laboratory Report

Projects MFA, Sire 1, CTO 86

encloses is the Laboratory report for semples received on 82/02/05. The data reported finitude :

Emplo ID Control & Co! Sate Matrix amplyous

NE ST-UE- SOTE U1 GT/ST/DE UNIUM MERCUPY DISSOLVED SEKT/OLATILE ORGAN

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The results are summarized on the following pages.

Almassified free to call if you have any questions concerning these country.

Simplified yours,

EMB P. Pang. Paul. Landroven's diffector 7235A

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 058011

SW 3520C/8270C SEWLVOLATILE ORGANICS BY GC/MS

Two (2) warer samples were received on 02/02/05 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846. 2rd ed.

1. Holding Time

Arialytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. Method Blank

Method blank was free of contamination at the reporting limit.

Surrogate Recovery

Recoveries were within OC limit.

Lab Control Sample/Lab Control Sample Displicate

Recoveries were within QC limit

Matrix Spike/Matrix Spike Duplicate

Sample	Campound	%Rec.	QC Limit
30111-02S	2-Chlorophenet	38	45 125

But recovery in MS met CC criteria. RPD was 1% higher than QC limit.

Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

SW 352CC/827CC SEMI VOLATILE ORGANICS EY CC/MS

Lisers WHAP STEER TECH FM, INC. Project : MFAP SITE I, CIO 86 Naten No. : OSBOITE I, CIO 86 Naten No. : OSBOITE I, CIO 86 Naten No. : OSBOITE I, CIO 86 Nate I	Matri A Moi Instr	sture :	92/07/05 17:00 02/14/05 19:42 .94 VATER NA 1-041
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SW 3520C/8270C SEMI VOLATILE ORGANICS BY GC/MS

Clast : TETRA TECH FW, INC. Clast : TETRA TECH FW, INC. Butch No. : USBUT IC :, CTO 86 Sample ID : 86-51 085 Lab Samp ID : 8011-62 Lab File ID : 680163 Gailb. Ref: RBMUZZ	Date Date Date Date Dilut Matri W Moi	ument ID :	02/02/05 02/07/05 17:00 02/14/05 20:10 .94 WATER NA T-041
PARAMETERS	RESULIS (ug/L)	QL (ug/l)	MDL (ug/L)
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^{2):} Reporting their (2): Carnot to teparated from 3-Methylphenol (2): Carnot be separated from Dippenytheiro

CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MEA, SITE 1, CTO 86

3DG: 058011

METHOD 7470A DISSOLVED MERCURY BY COLD VAPOR

Two (2) viater samples were received on 02/02/05 for Mercury analysis by Method 740 kin accordance with "Test Methods for Evaluating Solet Waste, Physical/Chemical Methods," SW486, 3rd edition.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blank was free of contamination at the reporting limit.

Lab Control Sample/Lab Control Sample Duplinate

Lab control results were within QC limit.

4. Serial Dilution / Post-Analytical Scike

Gample B011-02 was analyzed for serial citution and post-analytical spike. All GC requirements were met.

5. Matrix Spike/Matrix Spike Dualicate

Sample B011-02 was spiked. Recoveres were will of QC limit.

6. Sample Analysis

Samples were analyzed according to the prescripert QC procedures. All criteria were met with the aforementatined exception.

Samples were reported from DF 40 due to matrix interference

क्षेत्रहार इंग	AND DESCRIPTION TO	7584, 15 144,4.1	BAT A	TSIO	04.00 Page 1	T. J. Gold	Analysis DATETINE	Fathwetion OATE(1%E	CFIC	CAL REF	PREP BATCH	Collection	Received DATETIME
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LDC Report# 13235A2

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: January 31 through February 1, 2005

LDC Report Date: March 14, 2005

Matrix: Water

Parameters: Semivolatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05B011

Sample Identification

86-51-084**

86-S1-085

86-S1-085MS

86-S1-085MSD



^{**}Indicates sample underwent EPA Level !V review

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 20,0% for all compounds.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries ("SR) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associeted Samples)	Compound	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
86-S1-085MS/MSD (86-S1-085)	2-Chlorophenol	-	38 (41-125)	38 (≤30)	J (all detects) UJ (all non-detects)	А

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII, Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86 Semivolatiles - Data Qualification Summary - SDG 05B011

SDG	Sample	Compound	Flag	A or P	Reason
05B011	86-S1-085	2-Chlorophenol	J (all detects) UJ (all non-detects)	A	Matrix spike/Matrix spike duplicates (%R) (RPD)

Moffett Airfield, Site 1, CTO 86 Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 05B011

No Sample Data Qualified in this SDG





Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: January 31 through February 1, 2005

LDC Report Date: March 10, 2005

Matrix: Water

Parameters: Dissolved Mercury

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05B011

Sample Identification

86-S1-084**

86-S1-085

86-S1-085MS

86-S1-085MSD



^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current quidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial. continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample analysis is not required by the method.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (*RP) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
86-S1-085MS/MSD (All samples in SDG 05B011)	Dissolved mercury	13C (75-125)	158 (70-125)	-	J (all detects)	A

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86 Dissolved Mercury - Data Qualification Summary - SDG 05B011

SDG	Sample	Analyte	Flag	A or P	Reason
05B011	86-S1-084** 86-S1-085	Dissolved mercury	J (all detects)	٨	Matrix spike/Matrix spike duplicates (%R)

Moffett Airfield, Site 1, CTO 86 Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 05B011

No Sample Data Qualified in this SDG

CHAIN-OF-CUSTODY RECORD

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With: Lynn Jelferson

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Subject: Laboratory Report
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| Section | Section | Communication | Communic

The results are subscribed on the fall owing pages,

Fired fell free to out! If you have the questions concerning those constitution.

Kora Dong

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CASE NARRATIVE

CLIENT:

TETRA TECH FW. INC.

PROJECT:

MFA, SITE 1, CTO 86

SDG:

05B044

SEMI VOLATILE ORGANICS BY GC/MS

Four (4) water samples were received on 02/08/05 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3^{rt} ed.

1. Holding Time

Artialytical holding time was mel-

Turing and Calibration

Tuning and carbration were carried out at 12-hour interval. All QC requirements were met.

Method Blank

Method blank was free of sontamination at the reporting firm.

6. Surrogate Recovery

Recoveries were within QC limit

5. Lab Control Bomple/Lab Copirol Sample Duplicate

Recoveries were within QC finit.

Watrix Spike/Watrix Spike Displicate

No MS/MSD sample was dangitured in this SEAS.

7. Sample Analysis

Samples were enalyzed according to the plascribes DC procedures. All offertial were med.

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CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 058044

METHOD 7470A

DISSOLVED MERCUFIY BY COLD VAPOR

Four (4) water samples were received on 02/06/05 for Discolved Mercury analysis by Method 7470A in accordance with "Tasif Methods for Evaluating Solid Waste, Physical/Chemical Methods". SW843, 3" addition.

1. Holding Time

Analysis met holding line oftens.

2. Method Blank

Method blank was tree of contamination at the reporting and

Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within CC limit.

4. Serial Dilation / Fost-Apalytical Spike

Sample B023-02 from seather SDG was soulyzed for serial dilution and posianalytical spike. At OC requirements were mer.

5. Duplicate

Duplicare sample was not designated in this SDG.

6 - Matrix SpikerMotrix Spike Duplicate

No MB/MSD secuple was designated in this SDG

T. Sample Abalysis

Samples were analyzed accurring to the prescribed OC procedures. All criane were their

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LDC Report# 13235C2

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: February 1, 2005

LDC Report Date: March 10, 2005

Matrix: Water

Parameters: Semivolatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05B044

Sample Identification

86-S1-086

86-S1-088

86-S1-089

86-S1-090**

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

Cooler temperatures for all samples were reported at 10.4 $^{\circ}\text{C}$ upon receipt by the laboratory.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met

III Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 20.0% for all compounds.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V Blanks

Method blanks were reviewed for each matrix as apolicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-089 and 86-S1-090** were identified as field duplicates. No semivolatiles were detected in any of the samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86 Semivolatiles - Data Qualification Summary - SDG 05B044

No Sample Data Qualified in this SDG

Moffett Airfield, Site 1, CTO 86 Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 05B044

No Sample Data Qualified in this SDG



LDC Report# 13235C4

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: February 1, 2005

LDC Report Date: March 10, 2005

Matrix: Water

Parameters: Dissolved Mercury

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05B044

Sample Identification

86-S1-086

86-S1-088

86-S1-089

86-S1-090**

^{**}Indicates sample underwent EFA Level IV review

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample analysis is not required by the method.

V. Matrix Spike Analysis

The laboratory has indicated that there were no matrix spike (MS) analyses specified for the samples in this SDG, and therefore matrix spike analyses were not performed for this SDG

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII, Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-089 and 86-S1-090** were identified as field duplicates. No dissolved mercury was detected in any of the samples.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86 Dissolved Mercury - Data Qualification Summary - SDG 05B044

No Sample Data Qualified in this SDG

Moffett Airfield, Site 1, CTO 86 Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 05B044

No Sample Data Qualified in this SDG

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CASE NARRATIVE

CLIENT:

TETRA TECH PW. INC.

PROJECT

MFA, SITE 1, CTO 86

90G:

053028

SW 3526G/627UG SEMI VOLATILE ORGANICS BY GC/MS

Five (5) water samples were received on 92/04/05 for Senir Volume Organic analysis by Method 3520C/8270C in accordance with USEPA SW845, 31 ed.

i Holding Time

Analytical holding time was met.

Tuning and Calibration

Turing and calibration were carried out at 12-hour interval. All CC requirements were mot

3. Method Stank

Method blank was tree of comarronal on at the reporting main

A. Surragate Recovery

Recoveries were within OC limit.

5. Lab Control Sample/Lab Control Sample Dublingle

Progress were within CiC limit.

6. Matrix Spike/Matrix Spike Dripticate

No MS/MSD sample was designated in this SDG.

T. Sample Analysis:

Samples were analyzed occurring to the presented GC procedures. All offers were their



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CASE NARRATIVE

GUIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

5DG: 058928

METHOD 7470A

DISSOLVED MERCURY BY GOLD VAPOR

Five (5) water samples were received on 02/04/05 for Mercury analysis by Method 74/04 in accordance with "Test Methods for Evaluating Solid Waste, Physical Chemical Methods," SWR46, 3° edition.

1. Holding Time

Abalysis met holding time outeren

2. Method Blank

Method blank was free of contamination of the reporting limit.

Lab Control Sample/Lab Control Semole Duplicate

Lab centrol results were writin OC trail.

4. Senst Dilution /Analytical Spike

Sample 8023-02 from another SDS was designed for social diffusion and analysis? spike I I/C criteria were met.

6. Marris Spille/Matrix Salke Dublicate

Ivo MS/MSD sample was designated in this SDC

6. Sample Analysis

Samples were arrefyzed according to the precureed QC procedures. At order in vivere met.

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LDC Report# 13235B2

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: February 2, 2005

LDC Report Date: March 10, 2005

Matrix: Water

Parameters: Semivolatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05B028

Sample Identification

86-S1-091

86-S1-092

86-S1-093**

86-S1-094

86-S1-095



^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r²) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 20.0% for all compounds.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86 Semiyolatiles - Data Qualification Summary - SDG 05B028

No Sample Data Qualified in this SDG

Moffett Airfield, Site 1, CTO 86 Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 05B028

No Sample Data Qualified in this SDG



LDC Report# 13235B4

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: February 2, 2005

LDC Report Date: March 10, 2005

Matrix: Water

Parameters: Dissolved Mercury

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05B028

Sample Identification

86-S1-091

86-S1-092

86-S1-093**

86-S1-094

86-S1-095



^{**}Indicates sample underwent EPA Level /V review

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit
- Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample analysis is not required by the method.

V. Matrix Spike Analysis

The laboratory has indicated that there were no matrix spike (MS) analyses specified for the samples in this SDG, and therefore matrix spike analyses were not performed for this SDG.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII, Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86 Dissolved Mercury - Data Qualification Summary - SDG 05B028

No Sample Data Qualified in this SDG

Moffett Airfield, Site 1, CTO 86 Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 05B028

No Sample Data Qualified in this SDG

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Pate: 03-20-2615 CMAX Rater No : 050175

> Attn: Lynn Jefferson Frire Tech Fu, Inc. 1949 - Dearc Ave, Sulte 200 Santa Arm CA 92705

Subject: Laterstory Regire
Project: MIA, Size 1, CTU 86

Enclosed is the Laboratory report for Numblet received on 63/09/05. The dath reported modify:

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Streenly yours,

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CASE NARRATIVE

CLIENT: TETRA TECH FW. INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 050073

SW 3526C/8270C SEMI VOLATILE ORGANICS BY GC/MS

Nine (9) water samples were received on 03/09/05 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were comed out at 12-hour interval. All QC requirements were met.

3. Method Blank

Method blank was free of contamination at the reporting limit.

Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

Recoveries were within OC first.

6. Matri: Spike/Matrix Spike Duplicate

Sample C073-02 was spiked. All recoveres were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed OC princedures. All original were met.



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CASE NARRATIVE

CLIENT:

TETRA TECH FW. INC.

PROJECT:

MFA, SITE 1, CTC SE

SDG:

05C073

METHOD 7470A DISSOLVED MERCURY BY COLD VAPOR

Nice (9) water samples were received on 03/09/05 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Cherolical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met holding lime citiens.

idemod Blank

Method blank was free of contamination of the reporting limit.

Lab Control Sample/Lab Control Sample Duplinate

Lab control results were within GC limit.

Serial Olletton / Post-Analytical Spike

Sample 0073-02 was analyzed for sorial dilution and post-analytical spike. All QC requirements were met.

Morrix Spike/Metrix Spike Duplicate

Sample CO73-62 was spiked. All recoveries were within OC limit.

6. Sample Analysis

Samples were enalyzed according to the presonced QC procedures. All orbania were met.

All samples were reported from division runs due to metric interference

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Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, MFA Site 1, CTO 86

Collection Date: March 7 through March 8, 2005

LDC Report Date: April 14, 2005

Matrix: Water

Parameters: Semivolatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05C073

Sample Identification

86-S1-096

86-S1-097

86-S1-098

86-S1-100

86-S1-101

86-S1-102

86-S1-103

86-S1-104**

86-S1-105

86-S1-097MS

86-S1-097MSD

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 11 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

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- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent,
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required

i. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard doviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (r^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 20.0% for all compounds.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to ail samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits with the following exceptions:

Sample	Internal Standards	Aras (Limits)	Compound	Flag	A or P
80-01-102	Ohrysene-d12	477919 (579220-2316882)	Pyrene Butylbenzylphthalate 3,3'-Dichlorobenzidine Benzo(a)anthracene Chrysene Bis(2-ethylhexyl)phthalate	J (all detects) UJ (all non-detects)	P

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-103 and 86-S1-104** were identified as field duplicates. No volatiles were detected in any of the samples.

XVII. Field Blanks

Ne field blanks were identified in this SDG.

Moffett Airfield, MFA Site 1, CTO 86 Semivolatiles - Data Qualification Summary - SDG 05C073

SDG	Sample	Compound	Flag	A or P	Rozson
05C073	85-\$1-102	Pyrene Butylibenzylphthalate 3,3'-Dichlorobenzidine Benzo(a)anthracene Chrysone Bis(2-ethylhexyl)phthalate	J (all detects) UJ (all non-detects)	Р	internal standards (area)

Moffett Airfield, MFA Site 1, CTO 86 Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 05C073

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, MFA Site 1, CTO 86

Collection Date: March 7 through March 8, 2005

LDC Report Date: April 11, 2005

Matrix: Water

Parameters: Dissolved Mercury

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05C073

Sample Identification

86-S1-096

86-S1-097

86-S1-098

86-S1-100

86-S1-101

86-S1-102

86-S1-103

86-S1-104**

86-S1-105

86-S1-097MS

86-S1-097MSD

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 11 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to Indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample analysis is not required by the method.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG

CHAIN-OF-CUSTODY RECORD

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CASE MARRATIVE

GLIENT: TETRA TECH FW. INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 95C081

SW 3520C/8270C SEMI VOLATILE ORGANICS BY GC/MS

Fivo (2) water samples were received on 03/10/05 for Semi Volatile Gryanic analysis by Method 3520C/8270C in accordance with USEPA SW846, $3^{\rm u}$ ed.

1- Holding Time

Analytical holding time was met

2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All QC requirements were met

3. Method Islank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveres were within CC limit.

5. Lais Control Sample/Lett Control Sample Duplicate

Recovered were within C.C. limit

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSE sample was designated in this 3DG.

7. Sample Analysis

Samples was analyzed eccording to the prescribed QC procedures. At others were their



SEMI VOLATILE ORGANICO E: SU/MS

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CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDIG: 05C081

METHOD 7470A DISSOLVED MERCURY BY COLD VAFOR

Two (2) water samples were received on 03/10/05 for Dissolved Mergury analysis by Method 7470k in secondance with "Test Methods for Evaluating Solid Water, Physical/Chemical Methods," SW845, 3th addition.

1. Holding Time

Analysis mal holding time criteria.

2. Method Slank

Method blank was free of contamination at the recording limit.

3. Lab Control Sumple/Lab Control Sample Duplicate

Las control results were within QC limit.

4. Gerial Dilution / Post-Analytical Spike

Sample C073-02 from enother SOG was energized for sepail silution and post-analytical spike. All QC requirements were that.

5. Matrix SolkelMatrix Spike Duplicate

No MS/MSD semple was designated in this SDG.

Sampié Analyais

Samples were analysed according to the prescribed QC procedures. All orders were met

Samples were recorded from dilution runs due to mainly interference

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Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, MFA Site 1, CTO 86

Collection Date: March 8, 2005

LDC Report Date: April 14, 2005

Matrix: Water

Parameters: Semivolatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05C081

Sample Identification

86-S1-106**

86-S1-107

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles,

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

i. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (\vec{r}) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 20.0% for all compounds.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

Vi. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within OC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA Site 1, CTO 86 Semivolatiles - Data Qualification Summary - SDG 05C081

No Sample Data Qualified in this SDG

Moffett Airfield, MFA Site 1, CTO 86 Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 05C081

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, MFA Site 1, CTO 86

Collection Date: March 8, 2005

LDC Report Date: April 11, 2005

Matrix: Water

Parameters: Dissolved Mercury

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05C081

Sample Identification

86-S1-106** 86-S1-107

1

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whather the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data ware not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not datected at or above the stated limit.
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- R Quality control indicates the data is not usable.
- N Presumptive avidance of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample analysis is not required by the method.

V. Matrix Spike Analysis

The laboratory has indicated that there were no matrix spike (MS) analyses specified for the samples in this SDG, and therefore matrix spike analyses were not performed for this SDG.

VI. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed fcr each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not required by the method.

XI. Sample Result Verification

All sample result verifications met validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA Site 1, CTO 86 Dissolved Mercury - Data Qualification Summary - SDG 05C081

No Sample Data Qualified in this SDG

Moffett Airlield, MFA Site 1, CTO 86 Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 05C081

No Sample Data Qualified in this SDG

CHAIN-OF-CUSTODY RECORD

1230 Columbia Street, Suite 500 San Diego, CA 92101 (619) 234-8696

TETRA TECH

4 SEMI-ANNUAL START END ı Project Information Do not submit to ١ į ١ 2005 i Laboratory Section SAMPLING COMMENT TRIP BLANK W1-12R MI-17R SITE LOCATION ナーーラ WI-22 RUN MS MSD WI- 19 SAMPLE CONDITION: C. INTACT C. BROKEN METALS & MENCYRY JES FIRM FILTSKED COMMENTS MARK LABORATORY ID (FOR LABORATORY) DSDO 61 LABORATORY NAME SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) D BROKEN ANALYSES REQUIRED ABORATORY INSTRUCTIONS/COMMENTS O INTACT FEMPERATURE: COOLER SEAL: W nat 850458348343 949 756 -7557 1.EVEL 2084¢ TASK 28 NO OF CONTAINER 1990.086E KECEIVED BY (Summer) 33 ex RECEIVED BY (Signature) ECEIVED BY (Signature) IRCHASE ORDER NO TIME 4-11-05 1530 1.0-05 3000 1-17-05 JY30 4-12-05 1015 1300 4-11-05 1330 70-21-6 4-11-05 DATE LC C MEFETT PELL CH LIME DATE YUN JEFFERSON JOFFETT - SITE Sin Oak E11-15-2 011-15-91 LINQUISHED BY (Signalure) 18-81-123 311-15-98 36-51-114 6-51-113 SAMPLEID O'ECT LOCATION





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CASE NARRATIVE.

CLIENT: TETRA TECH FW. INC.

PROJECT: MFA SITE 1, CTO 86

SDG: 05D961

SW 5030B/8260B VOLATILE ORGANICS BY GC/MS

Six (6) water samples were received on 04/13/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. Holding Time

Analytical holding time was mer.

2. Tuning and Calibration

Tuning and calibration were corried out of 17 hour interval. All OC requirements were met.

Method Blenk

Method blanks were free of panear wration of the renorting limit.

4. Surrogate Recovery

Recoveries were within GC limit except 1 divene-d8 in LCS1W but recovery of leaders analyte and QC colories

5. Lab Control Sampleficati Control Sample Cuplicate

Recoveries were within CC Iran

Matrix Sptkg/Matrix Spike Dublicate

Sample D061-02 was spiked. All recoveries were within DC livid

7. Sample Analysis

Samples were analyzed according to the prescribed OG procedures. All calleds were mail with the Government Chief exception.



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CASE NARRATIVE

CLIENT:

TETRA TECH FW, INC.

PROJECT:

MFA, SITE 1, CTC 86

SDG:

05D081

SW 3520C/9270C SEMI VOLATILE ORGANICS BY 9C/MS

Five (5) water samples were received on 04/13/05 for Somi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 31 ed

1. Holding Time

Analytical holding time was met.

2 Tuning and Calibration

Tuning and calibration were carried out at 12 hour interval. All QC requirements were me.

3. Method Blank

Method blank was free of ogstammetion at the leparate land.

4. Surrogate Receiving

Recoveries were within CiC limit.

5. Lab Control Semple/Lab Columni Semple Duglinais

Recoveres were within GC limit.

Mater: Spine/Marrix Spike DardCate

Sample 0/651-62 was spiked. All regoveries were within QC first.

7. Sagnolis Acquirete

Samples were analyzed according to the presyded OC procedures. At orders, were men.



SU 39200/82790

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CARE NARRATIVE

CLIENT: TETRA TEGH FW. INC.

PROJECT: MFA, SITE 1, CTO 66

SDG: 950661

9W3520C/8081A PESTICIOSS

Five (5) where sumples were received on 047205 for Pesticides analysis by Method. 3520010011 A in accordance with Test Methods for Evaluating Sofid Weste, Physical Chemical Methods. \$100011 (1) \$10

1 Holding Time

Analytical rolding are was met

Instrument Performance And Calibration

milet calculation was at the point for flasholdes, at RSDs were within 20%. All contrains once subjects of 12 hour internal and mean recoveries were within 35-145%. Beltin and OOT breakers here within OC kintle.

3 Meltinet Stant:

Method black was files of bunbarmasion at the reporting limit.

d. Surrogete Receivery

Bridgeshas were within OC man.

5. Lab Control Sample Lab Control Sample Displicate

all recoveries were within DC whos-

6. Matrix Spikerknith, Spike Duplicate

Sample 2061-02 was spired. All receiveres were within CC limits.

7. Samula analysis

Samples were analyzed according to the prescribed DC procedures. All criteria wont and

When sample results are confused by a second option, the relative perceptage distance, RRO) between the Ryon value is collected of RRO a see from 40% and no extended of RRO) assessment with a set of the results of apparent perceptage of apparent perceptage in processing the highest entirely expense of RRO is greater and ARD, the compressional programmed, if no evidence of any attentionage for collecting, the relative to the reported of the perceptage of the results are excluded based on the relative collecting. The relative collecting is relative to the results are excluded based on the relative collecting.



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41-35-200/80814 FESTICIDES.

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CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 05D061

SW3520C/8082 PGBs

Five (5) water samples were received on 04/13/05 for PCBs analysis by Methou 3520C/6082 in accordance with "Test Methods for Eusharling Solid Weste, Physical/Chemical Methods", SW846, 3° cd.

1. Holding Time

Analytical helging time was helf

Instrument Performance and Calibration

Initial calibration was five points for PCB-1015 and PCB-1260, oil RSDs were within 20%. All continue calibrations were wildyzed at 12 hour interval and all rendicries were within 85-115%.

3. Method Biank

Method blank was free of contamination at the reporting three

4. Surrogate Recovery

Recoveres were within QC limit.

Lab Control Semple/Lab Control Sample Duplicate

All recoveries were within DC limits.

6. Matrix Spike/Matrix Spike Dupficate

Sangle D061-02 was spiked. All recoveries were within OC with

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All milera were risk.



593520078082 2005

Client TELPA TERR FM, 196. Frequent NFA, 818 1, cro We Stands No. 100000 1 Finals To B PS-51-11 FM- Comp. TD- 900-1102 FM- 115 to STRIBBINA FM- TELPA THE STRIBBINA FM- TELPA THE STRIBBINA FM- TELPA THE STRIBBINA FM- TELPA THE STRIBBINA FM- TELPA THE STRIBBINA FM- TELPA THE STRIBBINA	0: 3: 5: 0: 0: 4:	the Interest in Preived. the Armeted at Analyzed: into a Factor thirty or Factor thirty or (P)	95/11/45 95/13/05 96/14/05 (3:40 96/18/05 17:21 ,34 96/16R
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Sw5520L/6662 PCSs

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CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MEA. SITE 1, CTO 85

SDG: 950061

METHOD 7470A DISSOLVED MERCURY BY COLD VAPOR

Five (5) water samples were received on 04/13/05 for Dissolved Mercury analysis by Method 74/00. In accordance with Tiest Methods for Evaluating Solid Waste, Physical/Chemical Methods, 5W846, 3° edition.

1. Holding Time.

Analysis met holding lime criteria.

2. Method Stank

Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lah Control Sample Duplicate

Lab control results were within QC limit.

4. Serial Dilution / Post-Analytical Spike

Sample D061-02 was analyzed for social distilor, and post-abelytical spike. All DC requirements were first

5. Matrix Spike/Watrix Spike Ouplicets

Sample D061-02 was spiked. All recoveries were within OC limit.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criters were mist.

Samples were analyzed at DF 20 due to matrix internarence.

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Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Moffett Airfield, MFA Site 1, CTO 86

Collection Date:

April 11 through April 12, 2005

LDC Report Date:

May 25, 2005

Matrix:

Water Volatiles

Parameters: Validation Level:

EPA Level III & IV

Laboratory:

EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D061

Sample Identification

86-S1-122

86-S1-110

86-S1-112

86-S1-113

86-S1-114**

86-S1-115

86-S1-110MS

86-S1-110MSD

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for all individual compounds.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

For the purposes of technical evaluation, all compounds were evaluated against the 20.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-113 and 86-S1-115 were identified as field duplicates. No volatiles were detected in any of the samples.

XVII. Field Blanks

Sample 86-S1-122 was identified as a trip blank. No volatile contaminants were found in this blank.

Moffett Airfield, MFA Site 1, CTO 86 Volatiles - Data Qualification Summary - SDG 05D061

No Sample Data Qualified in this SDG

Moffett Airfield, MFA Site 1, CTO 86 Volatiles - Laboratory Blank Data Qualification Summary - SDG 05D061

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, MFA Site 1, CTO 86

Collection Date: April 11 through April 12, 2005

LDC Report Date: May 25, 2005

Matrix: Water

Parameters: Semivolatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D061

Sample Identification

86-S1-110

86-S1-112

86-S1-113

86-S1-114**

86-S1-115

86-S1-110MS

86-S1-110MSD

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 7 water samples listed on the cover shoot including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semiyolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (\mathbf{r}^2) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 20.0% for all compounds.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

Moffett Airfield, MFA Site 1, CTO 86 Semivolatiles - Data Qualification Summary - SDG 05D061

No Sample Data Qualified in this SDG

Moffett Airfield, MFA Site 1, CTO 86 Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 05D061

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, MFA Site 1, CTO 86

Collection Date: April 11 through April 12, 2005

LDC Report Date: May 25, 2005

Matrix: Water

Parameters: Chlorinated Pesticides

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D061

Sample Identification

86-S1-110

86-S1-112

86-S1-113

86-S1-114**

86-S1-115

66-S1-110MS

86-S1-110MSD

^{**}Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 7 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
 - Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The porcant relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

The individual 4,4'-DDT and Endrin breakdowns were less than 15.0%.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 86-S1-113 and 86-S1-114** were identified as field duplicates. No chlorinated pesticides were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA Site 1, CTO 86 Chlorinated Pesticides - Data Qualification Summary - SDG 05D061

No Sample Data Qualified in this SDG

Moffett Airfield, MFA Site 1, CTO 86 Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 05D061

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Moffett Airfield, MFA Site 1, CTO 86

Collection Date:

April 11 through April 12, 2005

LDC Report Date:

May 25, 2005

Matrix:

Water

Parameters: Polychlorinated Biphenyls

Validation Level:

EPA Level III & IV

Laboratory:

EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D061

Sample Identification

86-S1-110

86-S1-112

86-S1-113

86-S1-114**

86-S1-115

86-S1-110MS

86-S1-110MSD

^{**}Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 7 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance data were not provided and therefore not reviewed.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 86-S1-113 and 86-S1-114** were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Air Field, Site 1, CTO 86

Collection Date: April 11 through April 12, 2005

LDC Report Date: May 23, 2005

Matrix: Water

Parameters: Metals

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc./Columbia Analytical Services.

Inc.

Sample Delivery Group (SDG): 05D061/K2502714

Sample Identification

86-S1-110 86-S1-112

86-S1-113

86-S1-114** 86-S1-115

86-S1-110MS

86-S1-110MSD

86-S1-110DUP

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B and 7000 and EPA Method 200.8 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the methods stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III critena since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Beryllium Copper Nickel Selenium Thalitum Zinc	0.00009 ug/L 0.0010 ug/L 0.031 ug/L 0.74 ug/L 0.00027 ug/L 0.0008 ug/L	All samples in SDG 05D081/K2502714
ICB/CCB	Antimony	0.012 ug/L	86-\$1-110
ICB/CCB	Beryillum Cadmium Cobalt Nickel Selenium Silver Thallium	0.02 ug/L 0.02 ug/L 0.050 ug/L 0.495 ug/L 0.28 ug/L 0.01 ug/L 0.05 ug/L	86-\$1-110 86-\$1-112
ICB/CCB	Antimony	0.014 ug/L	86-S1-112 86-S1-113 86-S1-114** 86-S1-115

Method Blank ID	Analyte	Meximum Concentration	Associated Samples
ICB/CCB	Arsenic Beryllium Cadmium Chromium Chromium Cobalt Copper Nickel Silver Thallium Zinc	0.097 ug/L 0.00990 ug/L 0.0108 ug/L 0.207 ug/L 0.0205 ug/L 0.0225 ug/L 0.022 ug/L 0.0150 ug/L 0.02500 ug/L 0.035 ug/L	86-\$1-113 86-\$1-114** 86-\$1-115

Sample concentrations were compared to the maximum contaminant concentrations detected in the ICB/CCB/PBs. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Finel Concentration
86-S1-110	Antimoriy	0.382 ug/L	0.382U ug/L
	Beryllum	0.00386 ug/L	0.00386U ug/L
	Selenium	0.48 ug/L	0.48U ug/L
86-S1-112	Antimony	0,296 ug/L	0.296U ug/L
	Beryllium	0,00479 ug/L	0.00479U ug/L
	Selenium	0,68 ug/L	0.68U ug/L
	Thallium	0,00288 ug/L	0.00288U ug/L
86-S1-113	Antimony	0.300 ug/L	0.300U ug/L
	Beryllium	0.00216 ug/L	0.00216U ug/L
	Selenium	0.46 ug/L	0.46U ug/L
	Silver	0.0027 ug/L	0.0027U ug/L
86-S1-114**	Antimony	0.0306 ug/L	0.0306U ug/L
	Beryllium	0.00121 ug/L	0.00121U ug/L
	Selenium	0.52 ug/L	0.52U ug/L
	Silver	0.0029 ug/l	0.029U ug/l
86-S1-115	Antimony	0.414 ug/L	0.414U ug/L
	Salanium	0.84 ug/L	0.84U ug/L
	Silver	0.0017 ug/L	0.0017U ug/L

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
ica/ccB	Arsenic Beryllium Cadmium Chromium Cobalt Copper Nickel Sièver Thaillium Zinc	0.097 ug/L 0.00990 ug/L 0.0108 ug/L 0.207 ug/L 0.0138 ug/L 0.0225 ug/L 0.022 ug/L 0.0150 ug/L 0.0250 ug/L 0.0250 ug/L	86-S1-115 86-S1-114** 86-S1-115

Sample concentrations were compared to the maximum contaminant concentrations detected in the ICB/CCB/PBs. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Finel Concentration
86-S1-110	Antimony	0.382 ug/L	0,382U ug/L
	Beryllium	0.00386 ug/L	0,00386U ug/L
	Selenium	0.48 ug/L	0,48U ug/L
86-\$1-112	Antimoriy	0.296 ug/L	0.296U ug/L
	Beryllium	0.00479 ug/L	0.00479U ug/L
	Selenium	0.68 ug/L	0.68U ug/L
	Thallium	0.00288 ug/L	0.00288U ug/L
96-\$1-113	Antimony	0,300 ug/L	0.300U ug/L
	Berylaum	0,00218 ug/L	0.00216U ug/L
	Selenium	0,46 ug/L	0.46U ug/L
	Silver	0,0027 ug/L	0.0027U ug/L
86-S1-114**	Antimony	0,306 ug/L	0.300U ug/L
	Beryllium	0,00121 ug/L	0.00121U ug/L
	Selonium	0,52 ug/L	0.52U ug/L
	Silver	0,029 ug/l	0.0029U ug/L
86-\$1-115	Antimoriy	0.414 ug/L	0 414U ug/L
	Scionium	0 84 ug/L	0.84U ug/L
	Silver	0.0017 ug/L	0.0017U ug/L

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	%R (Limits)	Flag	A or P
88-S1-110MS (All samples in SDG 05D061/K2502714)	Arsenic Beryllium Copper	56 (75-125) 69 (75-125) 73 (75-125)	(stantab lia) I. UJ (all non-detects)	А

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

All internal standard percent recoveries (%R) were within QC limits for samples on which a EPA Level IV review was performed with the following exceptions:

Sampla	Internal Standard	%R (Limits)	Analyte	Flag	A or P
86-S1-114**	Indium-115	160.3 (60-125)	Antimony	J (all detects) UJ (all non-detects)	Р
			Barlum	J (all detects) UJ (all non-detects)	

Raw data were not evaluated for the samples reviewed by Level III criteria.

IX. Furnace Atomic Absorption QC

All graphite furnace atomic absorption QC were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for samples reviewed by Level III criteria.

X. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XI. Sample Result Verification

All sample result verification met validation criteria with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
All samples in SDG 05D061/K2502714	Antimony	Laboratory method detection limit reported at 0.12 ug/L	MDL should be reported at 0.05 ug/L per the QAPP.	None	P
All samples in SDG 05D061/K2502714	Banum	Laboratory method detection limit reported at 0.60 ug/L.	MDL should be reported at 0.05 ug/L per the QAPP.	None	Р

Raw data were not evaluated for samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-113 and 86-S1-114** were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

	Concentre	ation (ug/L)	
Compound	88-S1-113	86-51-114**	RPD
Antimony	0.300	0.306	2
Arsenic	1.550	1.630	5
Barium	74.3	73.4	1
Beryllium	0,00216	0.00121	56
Cadmium	0.2700	0.2940	9
Chromium	0 375	0.283	28
Cobalt	4 6700	6 3700	31
Copper	0 5280	0.5730	8
Lead	C.012	0.013	8

	Concentra	ation (ug/L)		
Compound	86-S1-113	86-S1-114**	RPD	
Nickel	87.9	99.0	12	
Selenium	0.46	0.52	12	
Silver	0.0027	0.0029	7	
Thallium	0 02780	0.02680	4	
Zinc	13.1	13.2	1	

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, Site 1, CTO 86 Metals - Data Qualification Summary - SDG 05D061/K2502714

SDG	Sample	Anelyte	Fleg	A or P	Reason
05D081/ K2502714	86-S1-110 86-S1-112 86-S1-113 86-S1-114** 86-S1-116	Arsenic Beryllium Copper	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R)
05D061/ K2502714	86-S1-114**	Antimony Barium	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	Р	Internal standards (%R)
05D061/ K2502714	86-S1-110 86-S1-112 86-S1-113 86-S1-114** 86-S1-115	Antimony Barium	None None	Р	Sample result verification

Moffett Air Field, Site 1, CTO 86 Metals - Laboratory Blank Data Qualification Summary - SDG 05D061/K2502714

SDG	Sample	Analyte	Modified Final Concentration	A or P
05D061/ K2502714	86-S1-110	Antimony Beryllium Selenium	0.382U ug/L 0.00386U ug/L 0.48U ug/L	A
05D061/ K2502714	86-S1-112	Antimony Beryllium Selenium Thallium	0,296U ug/L 0,00479U ug/L 0,68U ug/L 0,00288U ug/L	A
05D061/ K2502714	86-S1-113	Antimony Beryllium Selenium Silver	0.300U ug/L 0.00216U ug/L 0.46U ug/L 0.0027U ug/L	A
05D061/ K2502714	86-S1-114**	Antimony Beryllium Selenium Silver	0 306U ug/L 0 00121U ug/L 0.52U ug/L 0.0029U ug/L	A
05D061/ K2502714	86-\$1-115	Antimony Selenium Silver	0 414U ug/L 0 84U ug/L 0.0017U ug/L	A

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 86-S1-113 and 86-S1-114** were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

CHAIN-OF-CUSTODY RECORD

Project Information	Do not submit to Laboratory		LOCATION DEPTH QU	1810 B. D. W B	1 - 1 X - 1 - 1 X	1	-						SAMPLING COMMENT:	ì	\ \(\)	Seri - ANNOTE	9000	
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LABORATORIES, INC. 236 W 20511 Street Terromon C4 Great Tel: (210) 419-8889 Post (310) c 15-4819

Out # 05-09 2005 EMAX BUTCH No : CSDUS3

Attn: Lynn Jefferenn

Terra Joch FW, Inc. 1949 F Deere Ave, Suite 300 Santa Arm CA 92705

Subject: Laboratory Report Project: MFA, Site 1, CTO 86

Enclosed in the Laboratory report for Semplik recoloned on 0.7477% . We doth reported include :

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CASE NARRATIVE

CLIENT:

TETRA TECH FW, INC.

PROJECT:

MFA. SITE 1, CTO 86

SDG:

050063

SW 5030B/8260B VOLATILE ORGANICS BY GC/MS

Three (3; water samples were received on 04/12/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3 * ed.

1. Holding Time

Analytical helding time was mer.

2. Tuning and Calibration

Funing and calibration were carried out at 12-hour interval. All OC requirements were must

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogale Recovery

Recoveries were within OC limit.

Lab Control Sample A. ab Control Sample Duplicate

Precovaries were within OC know

6. Watrix Spike/Matrix Spike Dunicate

No MSMSD sample was designated in this 80G

7. Sample Analysis

Samples were invalided accuraing to the prescribed QC procedures. An only in were met.

S4 50303/8255% VGLATILE DRIGATICS E- DOZNS

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SW 5030B/BP63B VOLATILE CRANNICS BY GC/MS

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CASE NARRATIVE

CLIENT: TETRA TECH EMI

PROJECT: MFA, SITE 1, CTO 86

SDG: 68D953

SW 3520C/8270C SEMI VOLATILE ORGANICS BY GCMIS

Two (2) writer samples were received on 04/12/05 for Semi Volatile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3¹² ed.

1 Hoiding Lime

Analytical holding time was mer.

2. Tuning and Calibration

Turning and calibration were carried out at 12-from interval. All GC requirements were met.

3. Method Stank

Method blank was free of contamination at the reporting limit,

4. Surrogate Receivery

Recureries were within QC limit.

5. Lah Control Sample/Lab Control Samule Gunileate

Recoveries were within OC livre.

5. Mairtx Spike/Matrix Spike Duplicate

No MS/MISD sample was designated in this SOG.

7. Sample Amelyang

Satisfies were analyzed according to the prescribed QC procedures. At orders were med.



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CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, GTO 86

SDG: 05D053

SW3520C/8081A PESTICIDES

Two (2) water samples were received on 04.12/05 for Pesticides analysis by Method 35200/3803 f. In accordance with "Test Methods for Evaluating Solid Waste, Physical Deminds Methods," SW49.3, 5' ed.

1. Holding Time

Analytical holding time was there

2. Instrument Performance and Calibration

Initial colibitation was at five-point for Pasticidos, all RSDs ware within 20%. All communicationations were analyzed at 12 hour inserval and rate a recoveries were within 25-1-15% Ending and PSDT broadcom were within 20 banks.

3. Method Blank

Method blank was hee of contamiliation at the readcant until

4 Surrogate Recovery

Recoveries were within CC limit

5. Lab Control Sample/Lon Control Serrolle Duplicate

All recoveries were within OC finite.

6. Matrix Sulke/Matrix Stoke Duphsone

No M5/M3D sample was designated in this SDR.

7 Sample Analysis

Senteles more analyzed according to the presences OC precedures. All circum were met

When softable resists are occurrently a security coupling the resistive personnel by differential (RPP) between the Neumonia's excellented. If RPP is least enter of the analysis and no alwhere or chromosographic problems, the integer years in negociaci. If RPP is greater than 40th, the thromosographic problems, the integer value in negociaci. If RPP is greater than 40th, the thromosographic observed on an occurrence and entered the second of the



8W352CC/8381A FESTICIDES

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543320K/80816 PESTICIDES

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ALT A-EHC	(ND) NE	348	.0095] .0095
DARWIS-BAC (LINUSHE)	(NU) (ND	148	.0005 .0075
DETM-BHC	790, (100)	5.0.	9095 .0095
HEFTACHLOR	(NE) (NF)	.948	,6095 , 0009
SEL LA-CNC	CHD) [ND	0.49	.0075 .0095
ALDE IN	(ND) ND	, C+8	60951,4095
AFFITACHLOD FPOXIDE	(NO) NO	.848	.0093 0095
GAMMA - CHLOROWNE	(NO) ND	8.60	.0095 .0095
AUTHS - CHI CROANE	(HD) NO	.048	.00757.0095
F#5099 741 1	(RD) IND	. U. F.	928 228
7,41-90F	(HD) [HD	.005	.028 .028
RIELDRIE	(NO) FID	.19	. 695 1195
1128341	(NO) ND	1395	eTo, [210.
5.47 POD	(SC) (III)	10/375	.0251 648
FRESTAN FOR FE	11(2) NE	,6963	-0191.019
4, 43 -60 f	:NP : ND	.095	.012 .019
SHEWIN ALDERVICE	1 NO 3 NO	.075	.0191.015
EMPORES FOR THE PART	(NO) PC	_099	Jun 1010.
THEREIN AFTERNA	(160) IAD	0.02	, #501, H10
WETHER THE CE	(4E) MD	.445	, 095 , 605
TOWAPPEME.	CME > NO	2.3	1.2 1.2
SUDMOSETE PANAMETER!	# MECGWLTY	QC Links	
IE HACHLORG-F-KILEVE	711(92)	30-150	
WELVER LOBOR SPRESSYL	(32) 82	26-176	

by a supporting that $\label{eq:continuity} \text{Model in a support of the problem$



CASE NARRATIVE

CLIENT: TETRA FECH FW, INC.

PROJECT: MEA, SITE 1, CTO 86

SDG: 05D053

SW3520C/8082 PGBs

Two (2) water samples were received on 04/12/05 for PCSs analysis by idelthed 3520C/3082 in accordance with Trest Methods for Evaluating Solid Waste, Physical/Chemical Methods', SW846, 31 ed.

1. Holding Time

Anarytical holding time was met.

2. Instrument Performance and Calibration

Initial collustion was five points by PCRs 1016 and PCRs 1060, at RSDs were written 20%. All continue calibrations were analyzed at 12 more internal and all recoveries were within 95 -115%.

3. Method Blank

Method blank was tree or contemination at the reporting limit.

4. Surrogate Recovery

Recoveries were within OC limit

Lab Control SampleAusti Control Sample Duplicate

All recoveries were within CrC firmlis.

Matrix Spike/Matrix Spike Deplicate

No MS/MSD sample was designated in this SDG

7. Sample Analysis

Samples were analyzed according to the prescribed OC procedures. At citizens were mail



1405520079082 PERL

Clile: : TETRA TECH FO, BUC.	brate Cottlemand: 4271765
Fragent : MFA, SITE 1, CFD 86	5 000 Recompage 0% 12775
Sirch No. : MAGOSS	David Vistoriand: 54/34/05 18:00
Sumple 15: 85-61 105	Inite Americands star 78/05 18:35
ine Summe ID; 0033-32	Allufton Sarion; -96
LOD TY LO 18: SOMETIME	Mutrix - North
Est fach to: Cobits/	= Molistone = 86
Calib. ter.: Spisions	LOCALISMON, 150 : GETTIGHT

	HESULFS	N.	April .	
PAPM 1 1 22	(44/1)	Justin	Contain	
PUE-1916	(ND) line	- 94	242 24	
FUE-1221	(ND) (ND)	.94	2-1.2	
FFE-1232	CHD) (H)	. 9%	241.54	
PCC-1242	(ND) [NO	.94	241.24	
Trep-1248	(ND) ND	.94	24.1.24	
PLs -1254	CM) (001)	97.	241 24	
*Ca - 1346	(ND) ND	_12/4	.2% 24	
SUMBOLATE PARAMETERS	A RECOVERY	CC HIVE		
*** - * * () () () () (*****				
OF TRACKING OF ATTEME	(77)170	40-150		
DICACHLOROSS NEWS	19/11/46	20-150		

PS: Reporting Life; Leaving Colors | Alight of 1 whated to arcord column 1 to release the reported below: 1 to varieties the reported below: 5 but note on of the 2



303520178082 FCE

OTESTS . FETRA SECH FO, 1985.	Date following: 04/17/5
Priyect is MFA, SATE 1, CYU &6	Mate Secriment Available
Vor.A No. = 059053	Date Extracted: 04/14/09 15:10
aware the 35-81-100	lists Analyzed: 04, 13,05 lease
140: Serp. 10: 0053-05	Situation factor, .95
Lub Film IS: 80180114	Marris : WATER
Est Fich to: Grounds	# Maintage ##
Dis 1b. 2mt : 80 M 05A	Uncortagine (D. 1968)
- 100 farmer	Carlotte de Carlot

	RESULT:	R.	1171
PARAMETAPS	Complete	fug/t t	2144 3
		10000	Theres
PAS-1636	CHICOMY	-95	341.4
PCE 1921	CND 1 (ND	95	45.145
FICE (1252	(ND) (HD	-95	.2.1.6.
163 1242	(40) (50	45	1041.04
FCE - 1748.	(HD) IND	95	361.3
PCD - 1254	(MD) IND	.45	211 24
FICE - 1/260	(N6.) [40	-95	341.25
SUPPLIFATE PARAMETERS	E RESUVERY	at contr	
1-22-0-	****		
12 1 SWEDT 020-11-27 FEM	1853 iTS	36-150	
DECACHI DRIG TOHERY	1821 91	31-130	

II: θ mperting like that colline | Pryot or | inhered to servery online | θ and θ | θ and θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ | θ



CASE NARRATIVE

CLIENT: TETRA TECH FW, INC.

PROJECT: MFA, STIE 1, CTO 86

SDG: 05D053

METHOD 7470A DISSOLVED MERCURY BY COLD VAPOR

Two (2) water samples were received on 04/12/05 for Dissolved Mercury analysis by Method 7470A in accordance with Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW346, 3*edition.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blank was free of contamination at the reposing limit,

Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit.

4. Serial Dilution / Post-Analytical Spike

Sample D061-02 from adother SCG was snatyzed for serial dilution and post-analytical spike. All QC requirements were mat

5. Matrix Spike/Matrix Spike Duclicate

No MS/MSC vacuum was designated in this SDC.

5. Sample Analysis

Samples were analysed according to the prescribed QC productings. At calens were met.

Samples were analyzed at DF 20 due to matrix interference.

HETHON TAINM 91330LIEN WERDEN BY COLD UNFOR

Betch &c. 1 7 8095	F20953		A STATE AND LAND	The same of			1	-01202-1-212	001	A TAMES TO SERVICE AND ADDRESS OF THE PARTY	Instrument 10 1 1047	1047
Alesse In	31 11 anns	STREETS Chapts	D.I. MS137	Te (page) 1	(agyta)	MACHETINE	FATS SEED ON	Lifte	126 353	FACTO BATCH	Collection	Received SATETIME
			****					-111-		,		
SALES.	11,150,1600	196	118	10		04,34/8517,05	04, 1979S1513C 1470915U10	010315010	M473015008	HEDGTEN.	172	04/19/05
100.00	HELDICH.	0.00	N.	0.		56,20,05.75	115,19,10,15,33 KS 109,5013	W. 109 5013	84.70015UNS	480C16W	4ª	24/19/05
2000	THAT PURE	15.4	N. But	2.	-	34/20/0517:52		210212017	M473015009	9650160	4	34/19/05
MC-151-8	20-5200	NC	N G	-	01	G. (21/165:754)	DK / 19 / 16:33 # 6 70 \$ 5924	AS 799 5924	MA.70015020	DCDCD50	04,1150	04/12/05
BD - CS - CS	CC-5500	296	201	7	15	0,720,0517.43	0.120,0517 43 00.12-0515-46 Pt. Tonishing 14706150.00	PACK TRATEGIES	1470015nm	WEDC 1730	16/11/25	ALC: 515.05

No. Northernor Lieux

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COLUMBIA ANALYTICAL SERVICES, INC.

Chent: EMAX Laboratories, Inc. Service Rennest No.: 1,2502714 Moufett Site 1 Protect

Dure Received: 4.50-13.08 Sample Materix Water

CASE MARRATIVE

All analysis were performed consistent with the quality measures program of Calmebra analysis. Services, the (CAS). This report contains analytical to alle for sortiple, dealguage for Fig. bit validation deliverables reclading summary forms and all of the exactated new data for eye, of the analysis. When proportion to the method method bians results have been reported with each analytical test.

Sample Receipt

Twelve water samples were received for analysis at Colombia Analysis al Services between 4-14-15-05. Kin discrepancies were noted upon until sample inspectible. The samples were reversed in most condition and consistent with the accompany are close of particly form. The samples were stored in a retrigerator in 4°C upon receipt at the laborators.

Metals

Sample Notes and Discussion:

Our to the high sallings of sample matrix, of samples returned we decide these process processes are to mody to by ICP MS EPA 260.8. Another of Soundary was personaled by bydrale EPA 2742 the at the soline. named quality.

Matrix Spike Rossvery Executions:

The matrix apike recoveries of America (56%), flore flatin 100%, and Copper (75%), for sense \$6.54-110 very outside the project specified control orders in 75-425%. All the recoveres who within the CAS hadrowally derived limits for the reductive procedure procedure (As 50-145). Be 30-[22% and Ca 50-120]. Banca on he CAS statistical control limits, the recoveries should are in the range expected for ten precious. Recovery in the Enformery Courty Should (LCS) was acceptable, which indicates the analytic blook has an control. No hinterconserve schoolwaruppeopriate.

The central criteria for matrix spiles recommend Colorle and Michal for sample 36-31-110 are not applicable. The maly is concentration in the tention was considerable by her then the about malife continuous accounting account evaluation of the water remeats.

No other gampation gracined with car protess of there symptes were abacaves.

Approved by all office

-3-INCRUANIC ARALYSIS DATA SHEET

EMAX Laboratories, Inc.

Service Request: \$2502714

Project No.: NA

Project Nume: Moffett Site J

Date Collected: 04/11/05

Oate Reserved: 04/14/05

Matrix. WATER

Units: µG/L Basis! NA

Sample Hame: 86-81-103

Lab Code: #2502714-001 DISS

Analyte	Anelysis Method	ИR),	NOT	DI1.	Date Extracted	Date Analyzed	Result	C	1 9
Aluminum	6010B	50	50	1	4/21,65	4/25/05		U	J
Antimory	200.8	1.000	0.120	1	4/21/05	1/25/05			
Arsenic	200.8	C. 555	0.002	1	4/28/05	4/39/00	0.396	15	-
Bartun	200.8	1.00	0.60	7	4/21/05	4/25/05	0.934	-	177
Berylliam	200.8	0.02220			4/28/05	The same of the same of	73.3		1
Cadmium	P 000	0.0222	0.0003	1	-	4/19/05	0.00426	E	1/2
Chromium	200.5	0.222	0.002	1	4/28/05	4/29/03	0.4120		
Cobale	200 8	0 6222	0.9002		4/22/05	4/29/05	0.053	3	
Copper	1 300.9			1	4/28/05	4/22/03	13 5		-
Lead		0.3110	0.0009	1	4/28/05	6/89/05	0.6080		112
Na care t	200.8	0.022	0.001	1	4/28/05	4/29/95	0.427		-
THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	2011 3	0.222	0.002	1	4/28/05	1/26/05	32.3		
Selon.um	7142	1.00	0.30	2	4/72/05 1	5/2/05	0.46	2	
Silver	200.6	0.0222	0.0006	1	4/28/05	4/25/09	0.1920	-	-
Thalling	200.8	0.02220	0.00007	1	4/28/95	4/29/95	0.00000		-
Vanodium	9610a	10.0	6.0	2	4/21/05	4/25/95			
Zine	200.8	0.554	0-002	4	4/28/05	4/20/05	3,276	-	

a noirds: s.p.

Community:



INORGANIC ANALYSIS DATA SHEET

EMAN Laboratories, Inc.

Service Request: M2302714

Project No.: WA

Date Collected: 04/11/05

Project Maine: Norfott Site 1

Date Received: 94/11/05

Matrix

WAPEN

Umake: pc/r, Bustal DA

Sample Name | 86-S1-109

Lab Code: K2502714-002 DISS

Analyte	Analysis Method	MRL	HDI.	Dīl.	Date Extracted	Dn oc Analyzed	Pasult	c	Q
Al um. num	6010B	50	50	1	4/21/05	4/25/05	50	18	-
Antimony	200.8	1.000	0.120	1	4/21/05	4/25/05	0.364	1	
Arsenic	200.6	0.556	0.002	J	4/28/95	4/29/05 1	2 67.0		E
Barium	200.8	1.00	U. 60	i	4/21/05	4/25/05	145	-	-
Berylliam	200.8	0.02220	0.00009	1	4/28/95 1	4/29/03 1	0.00885	r P	100
Cadmium	200.8	0.0222	0.0002	1	1/26/05 1	4/29/05	0.0025	-	-
Chromium	200.8	0.222	0.002	1	4/28/05	4/29/95	0.535	-	-
Cobalt	260.8	0.6222	0.0002	1	4/28/05 1	4/29/05	1.1100		-
Copper	200.8	0.1110	1.0009	1	4/23/45 T	0/29/05	0.2630		G
lead	200.8	0.022	C-001	1	4/28/65 1	4/25/65	0.020	0	-
Nickel	200-8	0.222	0.002	1	4/29/05	4/25/05	8.230	E	-
Selenium	7742	1.00	0 30	2	4/21/05	5/2/05	0 46	D	
Silver	200.8	0.0222	0.0006	4	4/34/05	4/29/05	0.0013		-
Thallian	206 8	0.02220	C. 20007]	1	4/28/05	4/29/95	0.00210		_
/anad.um	6010B	10.0	6.0	3.1	4/21/05	4/25/05	6.01		-
Zine	200.€	0.655	0 502	1	4/20/05	6/29/05	0.013		



-1-INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request, \$2502714

Project No.; NA

Date Collected: 04/11/05

Project Name: Moffett Site i

Dace Received: 04/14/05

Umits, uG/L

WATER Matrix:

Besis! NA

Sample Name: 86-S1-110

bab Code: K2502714-003 DISS

Analyte	Analysis Method	MRL	MD1.	pil.	Date Extracted	Date Analyzed	Result	C	0
Aluminom	6010B	50	se	- 3	4/21/05	4/25/05	50	U	!
Antamony	200.8	1.000	0.120	1	4/21/05	4/25/05	0-382	В	
Arsenit	200.8	0.55	0.002	1	4/26/05	4/29/05	2.200	T	20
Bacaus	200.8	1.06	fl.ac	1	9/21/05	4/25/05	83.8	1	
Beryllinn	200.8	0.92220	20050.0	1	4/95/05	4/29/05	0.00386	В	F.
Cadmian	200.6	0.0232	0.0063	1	4/28/05	4/29/06	0.4770		T
Chromium	200.8	0 222	0.002	1	4/28/05	4/29/05	0.203	В	I
Cobalr	200.8	0.0222	0.0002	1	1/23/05	4/29/05	3.9300		1
Cogner	200 8	0:1116	6.0009	1	4/24/05	1/29/05	0.6140	1	15
Leud	200.8	9.022	6.001	1	4.22/05	4,29/05	0.042	[T
Nickal	200.9	0-122	0.092	-	4/39/05	4/29/05	12.7		1
Selenium	77.42	1.00	0.30	2	4/21/05	5/2/05	0.48	B	T
Silver	200.8	0.0222	0.0005	1	4/28/05	4/29/05	5.6273	1	1
Thall inm	200.8	6.02229	0.60007	1	4/28/05	4/29/05	0.07190	1	1
Vanadium	50102	10.5	6.0	1 1	4/21/05	4/25/05	5.0	177	1
Zing	8,009	0.956	0.002	i i	4/28/95	4/29/95	2.520		T

Commence



Columbia Analytical Services

DISSOLVED METALS

-1-INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc.

Service Request: K2502714

Project No.: NA

Date Collected: 04/11/05

Project Name: Maffett Site 1

Date Received: 04/11/05

WATER Matrix:

Units: µG/L

Basis: NA

Sample Nume: 86-51-112

Lab Code: K2502714-004 DISS

Analyte	Analysis Method	Mal	MDL	Sil.	Date Extracted	Date Analyzed	Result	С	Č
Aluminum	60108	50	50	1	4/21/05	4/25/05	50	U	-
Astimony	200.8	1.000	0.120	1	4/21/05	4/25/05	0.296	0	Ī
Aggenic	200.8	0.556	0.002	1	4/28/05	4/29/05	4.540	-	M
Barius	200.9	1.00	0.60	1	4/25/05	4/25/05	184	1	-
Beryllion	200.3	0-02220	0.00009	1	4/28/05	4/29/05	0.06479	13	24
Cathulus	200.5	0.0222	0.0003	1	4/28/05	4/29/05	0.0122	B	I
Chromium	200.0	9.222	0.002	1	4/28/05	4/29/05	0.530		T
Cobact	290.3	0.0222	0.0002	ī	4/28/05	4/29/05	6.0100		1
Copper	200.8	U.1110	0.0003	I.	4/25/05	4/29/05	0.2250	1	1 51
Leund,	200-8	0.022	0.001	1	4/28/05	4/29/95	0.037	-	1
Biok-	200.9	0.222	0 002	1	4/28/05	4/29/05	7.080	-	
Selenian	7732	1-90	0.30	2	4/21/05	5/2/05	0.68	3	i –
Silver	1.008	0.0222	0.0006	1	4/28/05	4/29/03	9.9243	-	1
Watties.	200.8	0.02720	0.90007	1	4/28/05	4/29/05	0.00288	6	
Vanadiss	60103	10.0	5.0	1	4/21/05	4/25/05	6.5	30	
Sinc	900.8	2.555	0.007	1	4/28/05	4/29/05	1.340		<u> </u>

Comments:



TNORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc. Service Request: #2502714

Project No.: NA Date Collected: 04/11/05

Basis. NA

Sample Name: 86-81-113 hab Code: K2502714-005 DISS

Enalyte	Anaiysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	c	Q.
Aluminum	6010B	50	50	1	4/21/05	4/25/05	50	U	1
Antimony	200.8	1.000	0.120	1	4/21/05	4/25/05	0,300	66	1
Arsenic	200.8	0.556	0.002	1	4/28/95	4/29/65	1.550		14
Barium	200.8	1.00	0.60	1	4/21/05	4/25/63	74.3		1
Beryllium	200.8	0.02220	0.00009	5.	4/28/05	1/29/05	0.00216	B	114
Cardina um	200.8	G.0222	0 0003	1	4/28/05	4/29/05	0.2700	1	
Chromi um	200.8	0.222	0.002	1	4/28/05	4/29/05	0.375	1	1
Copalt	200.8	0.0222	0.0002	1	4/28/65	4/29/05	4.6700	1	T
Copper	250.8	0.1116	0.0009	1	4/28/05	4/29/05	0.5240	1	15
Lead	200.8	0.022	0.001	1	4/28/05	4/29/05	0.012	В	
Nickel	200.8	2.220	0.022	10	4/28/05	4/25/05	87.6	Γ.	T
Selenium	7742	1.00	6_30	2	4/21/05	5/2/08	9.46	B	Ī
Silver	200.8	0.0222	0.0006	1	4/28/95	4/29/65	0.0027	В	1
Thallium	200.8	0.02220	0-0007	1	4/28/05	4/29/08	0.02780	1)
Vanadium	50108	10.0	6.0	1	4/21/05	4/25/09	€.0	U	i
Zzac	209 8	0.359	5.003		6/29/05	4/29/65	19.1	-	1

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Isboratories, Inc. Service Request: K2502714

Project No.: NA Date Collected: 04/11/05

Project Name: Moffett Site I Date Received: 51/14/05

Matrix: WATER Unite: µg/L

Sample Name: 86-S1-114 Lab Code: K2502/14-006 DISS

Analyte	Analysis Method	MRL	an i	rii.	Date Extracted	Date Analyzed	Result	С	Q
Alumirum	5010B	50	50	1	4/21/05	4/25/05	50	77	1
Antimony	200.8	1.000	0.120	3	1/21/05	4/25/05	0.305	В	1
Arsenic	200.3	0.556	0.002	3	5/28/05	4/29/05	1.630	i -	N
Barium	200.8	1.00	0.80	1	1/21/05	4/25/05	73.4		-
Beryllium	205.8	0.02220	2.95009	1	6/28/03	4/29/05	0.00121	В	M
Cadrdum	200.3	0.0222	0.0003	3.	4/29/05	4/29/05	0.2940	Ī	T
Chroma um.	200.8	6.222	0.602	1	4/23/05	4/29/05	0.263	İ	T
Cobalt	200.€	C. 0222	0.0002	1	4/28/05	4/29/05	6.3700	T	T
Серриг	200.8	0.1110	9,0009	1	6/26/05 [1/29/05	0.5730	f -	111
Lead	200.8	0.022	0.001	1	4/28/03	4/29/03	C.012	В	T
Nickel	200.B	7.220	0.022	10	4/28/03	4/29/05	99.6		1
Selenium	7742	1.00	0.30	2	4/21/05	5/2/05	0.52	В	1
Silver	200 6	C.0222	9.0008	L	4/28/05	4/29/05	0.0029	В	-
Thallium	200.8	0.02220	0.94007	0	6/28/03	4/29/05	0.02680		L
Vanadium	50:03	10.0	5.0	7	4/21/05	4/25/05	6.0	U	-
Zinu	200.3	G-556	0.009	1	4/28/05 1	4/29/05	17:2		i -

Columbia Analytical Services

DISSOLVED METALS -1-

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Ist.

Reivice Request: #2502714

Project No.: NA

Date Collected: 04/11/05

Project Name: Moffett Site 1

Date Received: 04/14/05

Matrix:

Units: µG/L

WATER

Basis: NA

Sample Name: 36-S[-115

Lab Code: K2502714-007 DISS

Analyce	Analysis Method	MRI.	MDL	ĐĪI.	Date Extracted	Date Analyzed	Result	c	Q
Aluminum	6010B	30	50	1	4/21/05	4/25/05	50	U	t
Antimony	200.0	1.000	0.120	1	4/21/05	4/25/05	0.414	В	Ť.
Arsenic	200.5	J.11C	0.004	2	4/29/05	4/29/05	2,760		M
Berrun	200.E	1.00	0.60	1	4/21/05	4/25/05	209	100	
Beryllium	200.8	6.64460	0.00018	2	4/28/05 1	4/29/05	0.01100	.9	N
Cudminus	200-8	0.0444	9.0007	2	4/28/05	4/29/05	0.0007	U	-
Chromium	200 8	0.444	0.004	2	4/29/05	4/29/05	26.0		-
Cobalt	200.8	0.0464	9.0094	2	4/28/05	4/29/03	4.5300		Ť
Сирринт	200.8	0.2220	0.00%	2	4/28/05	4/29/05	0.8310		N
Lead	200.8	9.044	0.002	2	4/28/05	4/29/05	0.100		T
Nicke!	200.6	2.229	9 922	10	4/28/05	4/29/05	427		
Selenium	7'/42	1.00	2.30	2	4/21/05	5/2/05	C.84	.3	-
Silver	200.8	6.0444	0.0011	2	4/23/05	4/29/05	0.0017	8	i -
Thallium	205.6	0.04440	0.00613	2	4/20/05	6/29/05	0.00013	TT	T
Fanudium	603.05	10.4	6.0	1	4/21/05	4/25/05	6,0	13	i
Z 1,2142	1 205.9	4.310	G-004	- 22	4/28/05	4/29/05 1	9 285		-

Columbia Analytical Services

DISSOLVED METALS

-1-INORGANIC ANALYSIS DATA SHEET

EMAX Rehoratories, Inc.

Service Request: k2502714

Project No. 1 NA

Date Collected: 04/12/05

Project Name: Moffort Site 1

Date Received: 04/15/05

Units: µG/1

Matrix: WAPER

Basis: NA

Sample Name: 86 S1-11S

1-ab Code: K2502714-008 DIS3

Analyte	Analysis Method	MRA	MCL	Dil.	Date Extracted	Date Analyzed	Result	c	2
Aluminum	6010B	50	80	1	4/21/05	4/25/05	50	U	m
Ancimony	200.8	1.000	0.120	1	4/21/05	4/25/05	0.214		-
Arsenic	200 8	0.555	C.002	1	4/28/05	4/29/05 1	1.050	1	Ed.
Barium	200.8	1.00	0.60	1.	4/21/05	4/25/05	597	1	1
Beryllinne	200.8	0.02220	6.00009	1	4/28/05	4/29/65	0.07116	E	N
Cadmium	200.8	0.0222	0.0003	1	4/28/05	4/29/05	0_0005	1/	1
Chromium	200.3	0.222	0.002	l	4/28/05	4/29/05	0.356	Γ-	
Cobalt	200.8	0.0222	0.6002	L	4/28/D5	4/29/05	1.2900	1	-
Couper	200.8	0.1110	0.0009	1	4,28/03	4/29/05	0.1420		10
Esed	200.8	0.022	6.001	2	4/28/05	4/29/05	0.007	6	1
Nickel	280.3	0.222	0.002	E.	4/28/05	4/29/05 [4.020	-	1
Seleniam	7742	1.00	6.30	2	4/21/05	5/2/05	C-44	8	-
Silver	200.8	0.0222	0.0006	1	4/28/05	4/25/05	5.009€	TI	1
Phalling	200.8	0-02220	C.99097	ž.	4/28/05	6/29/05 !	0.00007	IJ	1
Yanadina	60105	19.0	6.	2	4/21/05	4/25/05	5.0	0	
Zink	200.9	0.1,66	0.002	1	4/38/95	4/29/05	0.329	25	-



Columbia Analyticat Services

DISSOLVED METALS

-1-INORGANIC ANALYSIS DATA SHEET

Circuit: EMAX Laboratories, Inc.

Service Regust: 82502714

Project No : NA

Date Collected: 04/12/05

Project Summe: Moffett Site 1

Date Received: 04/15/05

Units: uG/L

WATER

Basis: NA

Sample Name: 86-81-117

Lab Code: K2502714-069 DISS

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	50	1	4/21/05	4/25/05	50	U	-
Antimony	209.8	1.000	0.120	1	4/21/05	4/25/03	9.201	B	<u> </u>
Arsenic	200.8	0.556	0.002	1	4/28/05	4/29/05	2 090	-	N
Barium	200.8	1.00	0.60	1	4/21/05	4/25/05	130	Ī	1
Beryllium	200.€	0.02220	0.90009	1	4/28/05	4/29/05	0.00052	B	N
Cacmoun	200.8	0.0222	0.0003	4	4/28/05	4/29/05	0.0393		1
Chromium	200.8	0.222	0.092	1	4/28/95	4/29/05	0.263	i	
Cobelt	200.3	0.0222	0.0002	1	4/28/95	4/35/05	2.7400		1
Copper	200.8	0.1110	0.0000	1	4/28/05	4/29/GE	0.2590	-	11
Lead	200.8	0.022	0.931	1	4/26/05	4/29/05	0.007	В	
Nickel	1 300 H	0.222	0.002	1	4/28/05	4/39/05	5.410	-	-
Selesium	7742	1.00	0.30	2	4/21/05	5/2/05	0.48	F	İ
S: lver	200.3	0.0222	0.0006	1	4/2P/05	4/29/05	6.0150	13	
Thallium	200.8	0.02220	0.00007	1	4/28/05	4/29/05	0.00007	U	
Vanedium	69308	10.0	6.0	1	1/21/05	4/25/65	9.0	U	-
Zine	1 200.8	0.55€	0.002	1,	4/28/06	1/29/05 I	6.450	-	-

% Sqlide. 0.0

Compression:



Columbia Analytical Services

DISSOLVED METALS

-1-INORGANIC ANALYSIS DATA SHEET

Client: SMAX Laboracories, Inc. Service Maguest: 32502714

Project No.: NA Date Cellected: 04/12/05

Project Name: Morfett Site 1 Owne Peccived: 04/15/05

Matrix: WATER Units: µG/L Sasis: NA

Analyte	Analysis Method	MRIo	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	50	1	4/21/05	4/25/05	50	U	
Antimony	200.8	1,000	0.120	1	4/21/05	4/25/05	C.202	В	
Arsenic	200.8	0.556	0.002	2	4/29/05	4/29/05	1.770		N
Barium	200.6	1.00	0.60	L	4/21/05	4/25/05	130		
deryllaum	269_8	0.92220	0.00005	1	4/28/95	4/29/05	0.00009	U	N
Ca dm. um	200.8	6.6222	0.0003	1	4/28/05	4/29/05	0.0418	-	Γ.
Chicoma um	200.9	0.222	6.002	1	4/28/05	4/29/05	C.257	Г	Г
Cobalt	200.8	0.0222	0.0002	Ĭ.	4/28/05	4/29/05	2.4000	-	1
Copper	200.6	C 1110	0.0009	- 1	4/28/05	4/29/05	0.4340		P2.
Lead	200.3	C-022	0.901	1	4/28/05	4/29/05	0.020	В	
Nickel	260.8	0.222	0.602	1	4/28/05	1/29,'05	5.270	T-	1
Selenium	77.62	1.00	0:30	2	4/21/05	5/2/05	0.46	3	Ī
Silver	200.9	0.0222	C.0006	1	1/29/05	4/29/05	0.0151	В	Γ
Thallium	1 200.8	0.02220	0.00007	1	4/28/05	4/29/05	0.00007	IJ	T
Vanadium	60108	10.6	9.0	1	4/21/05	4/25/05	5.0	Ti.	_
Zinc	1 299 8	0.596	0.602	1	4/28/05	4/29/05	7 150	-	



Columbia Analytical Services

DISSOLVED METALS

INORGANIC ANALYSIS DATA SHEET

Client: SMAX Laboratories, Inc. Service Request: K2502714

Project No.: NA Date Collected: 04/13/05

Project Name: Moffett Site 1 Date Received: U4/15/05 Motrix: WATER Units U3/1,

trin: WATER Units pg/,,
Basis: MA

Sample Name: 86-83-119 Lab Code: E2502714-011 DISS

Analyte	Analysis Method	MERL	MD1.	Dtl.	Date Extracted	Date Analyzed	Result	с	0
Aluminus	6C 1.0B	50	50	1	4/21/05	4/25/05	50	U	İ
Antimony	200.8	2.000	0.240	- 8	4/21/05	4/25/05	0.252	3	1
Arsonie	200.8	0.556	0.002	1	4/28/05	4/29/05	6.330	1	1 17
Ballun	20¢.8	2.00	1.20	2	4/21/05	4/25/03	218		Г
Bacyllium	200.8	0.02220	0.00009	-1	4/28/05	4/29/05	0.00817	13	58
Cachium	300.8	0.0222	0.0003	1	4/28/05	4/29/05 !	0.0056	13	1
Chaemann	200.9	0.222	0.002	1	4/28/05	4/29/05	1.190	Г	1
Cebalt	200.8	0.0222	0.0002	1	4/28/05	4/29/05	6.2900	1	1
Copper	200.5	0.1110	0.0005	i.	4/28/05	4/29/55	0.2430		10
iead	200.8	0.022	0.001	3	4/29/05	4/29/05	9.014	B	T~
Nackel	200.9	€.222	0.002	1	4/28/05	4/29/05	12.2	Г	1
Selenium	7742	1-00	0.30	2	4/21/05	5/2/03	0.44	В	[
Silver	209.5	0=0222	9.0006	1	4/28/05	4/29/05 1	0.0031	19	1
The Lilian	200.8	9.02220	0.96607	1.	4/28/05	4/29/03	0.00007	3	Ī
Valuery i Tim	#010B	10.0	6_0	1	4/21/05	4/25/05	8.5	13	F
King	200.9	0.666	0.092	1	4/29/05	4/29/05	0.752	-	1

t Salian G.D

Comments



INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, fac-

Service Request: A2502714

Project No.: NA

Date Collected: 04/13/05

Date Received: 04/15/05

Project Name: Woffatt Sico 3

Units: pG/L

Matieter WATER

Basis: NA

Sample Name: 86-81-120

Dalo Code: KP502714-01E 0198

Analyte	Analysis Method	MRI.	MDL	Dīl.	Date Extracted	Sate Analyzed	Recult.	С	Q
Aluminum	60103	50	50	1	1/21/05	4/25/05	50	U	-
Antimony	200.8	1.000	0.120	1	4/21/05	4/25/05	0.312	8	T
Arsenic	200.8	0.556	0.002	1	4/28/05	4/20/06	5.430		36
Barium	200.5	1.00	0.60	1	4/21/65	1/25/05	240	-	i
Beryllium	200.8	0.02220	0.90009	1	2/23/03	1/29/05	9.00612	13	21
Cadmium	200.8	0.0222	0 0003	1	4/23/05	4/29/95	0.0003	U	1
Ch romi um	200.8	0.222	0.002	1	4/28/05	4/29/05	0.376	-	1
Cobalt	200.8	0.0222	0.0002	1	4/28/05	1,29/05	4.5900	1	1
Copper	200.8	0.1530	0.0000	1	4/25/05	4/20/08	0.27.40		Pi.
Lead	200.8	0.022	0.001	1	4/22/05	4/29/05	0.011	6	
Nickel	260.3	0.222	0.002	1	4/28/05	4/29/05	19.2	-	T
Salanium	7742	1.00	U.30	2	4/21/05	5/2/05	6.54	E	T
Silver	200.8	0.0222	0,6536	1.	4/28/05	4/29/05	0.0025	18	T
Thalling	200.8	0.02220	0.00007	1	4/20/05	4/29/05	0.00007	100	
Vanagium	6010B	10.0	6.0	l E	4/21/05	4/25/05	7.1	5	1
E. 1.115	200.8	0.556	0.002	1	4/28/03	4/29/05	0.460	#3	T

INORGANIC ANALYSIS DATA SHEET

Client: EMAX Laboratories, Inc. Service Request: \$2502714

Portjact No.: NA Date Collected

Project Name: Moffett Site 1 Date Received

Matrix: WATER Unit: µ6/L Basis: NA

Sample Name: Method Blank

Lab Code: K2502714-sfB

Analyte	Analysis Method	PER C	MDL	Dily	Date Extracted	Date Analyzed	Result	С	0
Aluminem	6010B	50	50	1	4/21/05	4/25/05	50	U	1
Antimony	200.8	1.000	0.120	1	4/21/05	4/25/05	0.120	U	1
Artenic	200.8	0.556	0.002	1	4/28/05	4/29/05	0.002	U	N
Bartum	200.8	1.00	0.60	1	4/21/05	4/25/05	0.60	C	
Becyllium	200.8	0-02320	0.0000	1	4/28/05	4/25/05	0.00009	В	N
Cacimium	200.8	0.5222	0.0003	1	1/29/05	4/29/05	0.0003	0	-
Chromium	209.8	0.732	0.002	1	4/28/05	4/29/05	9.002	U	
Cohalt	200 8	0.5227	6.0002	1	4/28/05	4/29/05	0.0002	U	
Scepan	200.8	0.1110	0 0009	1	4/29/05	4/29/05 !	6-0010	55	96
Lead	200.8	0.022	9.001	1	4/25/95	4/29/05	0.001	U	
Mickel.	200.8	0 .322	6.002	1	.4/28/05	4/29/05	0.681	В	
Selanium	7742	1.90	0.39	2	4/21/05	5/2/05	C.74	В	
3ilver	200.8	0.0232	0.0006	-1	4/28/05	4/29/05	0 0006	0	_
Thalliam	200.8	0.02320	6.00007	1	4/25/UE	4/29/05	0.00027	В	
Venadium	60.703	10 0	9.0	1	6/21/05	4/25/05	6 0	ij	r
zine	245.8	0.356	0.002	1	4/28/05	4/29/05	0.006	В	_

8 Solids: 0.0

Comments:

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, MFA Site 1, CTO 86

Collection Date: April 11, 2005

LDC Report Date: May 25, 2005

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D053

Sample Identification

86-S1-121 86-S1-108 86-S1-109**

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatilies.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for all individual compounds.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

For the purposes of technical evaluation, all compounds were evaluated against the 20.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

Sample 86-S1-121 was identified as a trip blank. No volatile contaminants were found in this blank.

Moffett Airfield, MFA Site 1, CTO 86 Volatiles - Data Qualification Summary - SDG 05D053

No Sample Data Qualified in this SDG

Moffett Airfield, MFA Site 1, CTO 86 Volatiles - Laboratory Blank Data Qualification Summary - SDG 05D053

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Moffett Airfield, MFA Site 1, CTO 86

Collection Date:

April 11, 2005

LDC Report Date:

May 25, 2005

Matrix:

Water

Parameters:

Semivolatiles

Validation Level:

EPA Level III & IV

Laboratory:

EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D053

Sample Identification

86-S1-108

86-S1-109**

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (\vec{r}) was greater than or equal to 0.990 .

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 20.0% for all compounds.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within OC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CROLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by level III criteria

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA Site 1, CTO 86 Semivolatiles - Data Qualification Summary - SDG 05D053

No Sample Data Qualified in this SDG

Moffett Airfield, MFA Site 1, CTO 86 Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 05D053

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Moffett Airfield, MFA Site 1, CTO 86

Collection Date:

April 11, 2005

LDC Report Date:

May 25, 2005

Matrix:

Water

Parameters:

Chlorinated Pesticides

Validation Level:

EPA Level III & IV

Laboratory:

EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D053

Sample Identification

86-S1-108

86-S1-109**

^{**}Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

The individual 4,4'-DDT and Endrin breakdowns were less than 15,0%.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QO limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

XV. Field Blanks

No field blanks were identified in this SDG.

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Moffett Airfield, MFA Site 1, CTO 86

Collection Date:

April 11, 2005

LDC Report Date:

May 25, 2005

Matrix:

Water

Parameters:

Polychlorinated Biphenyls

Validation Level:

EPA Level III & IV

Laboratory:

EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D053

Sample Identification

86-S1-108 86-S1-109**

^{**}Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance data were not provided and therefore not reviewed.

III. Initlal Calibration

initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was porformed. Raw data wore not evaluated for the samples on which a Level III review was performed.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recovenes (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CROLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA Site 1, CTO 86 Polychlorinated Biphenyls - Data Qualification Summary - SDG 05D053

No Sample Data Qualified in this SDG

Moffett Airfield, MFA Site 1, CTO 86 Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 05D053

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Air Field, Site 1, CTO 86

Collection Date: April 11, 2005

LDC Report Date: May 23, 2005

Matrix: Water

Parameters: Metals

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc./Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): 05D053/K2502714

Sample Identification

86-S1-108 86-S1-109**

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B and 7000 and EPA Method 200.8 for Metals. The metals analyzed were Aluminum. Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead. Mercury, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the methods stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III onteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UI Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Beryllium Copper Nickel Selenium Thallium Zinc	0.00009 ug/L 0.0010 ug/L 0.031 ug/L 0.74 ug/L 0.00027 ug/L 0.008 ug/L	All samples in SDG 05D053/K2502714
ICB/CCB	Antimony	0.012 ug/L	86-S1-108
ICB/CCB	Beryllium Cadmium Cobalt Nickel Selenium Silver Thallium	0.02 ug/L 0.02 ug/L 0.055 ug/L 0.495 ug/L 0.28 ug/L 0.01 ug/L 0.05 ug/L	All samples in SDG 05D053/K2502714
ICB-CCB	Antimony	0 014 ug/L	86-S1-109**

Sample concentrations were compared to the maximum contaminant concentrations detected in the ICB/CCB/PBs. The sample concentrations were either not detected or were significantly greater (> 5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
86-S1-108	Antimony	0.396 ug/L	0.396U ug/L
	Beryllum	0.00426 ug/L	0.00426U ug/L
	Selenium	0.46 ug/L	0.46U ug/L
86-S1-109**	Antimony	0.304 ug/L	0.304U ug/L
	Baryllium	0.00883 ug/L	0.00883U ug/L
	Cadmium	0.0025 ug/L	0.0025U ug/L
	Salenium	0.46 ug/L	0.46U ug/L
	Silver	0.0013 ug/L	0.0013U ug/L
	Thallium	0.00210 ug/L	0.00210U ug/L

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	%R (Limits)	Fing	A or P
86-S1-110MS (All samples in SDG USDUSJ/NZ50Z714)	Arsenic Beryllium Copper	58 (75-125) 69 (75-125) 73 (75-125)	J (all detects) UJ (all non-detects)	А

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

All internal standard percent recoveries (%R) were within QC limits for samples on which a EPA Level IV review was performed with the following exceptions:

Sample	Internal Standard	%R (Limits)	Analyte	Flag	A or F
36-S1-109**	Nickel-61 Indium-115 (4/25/05) Indium-115 (4/25/06)	253.6 (60-125) 143 (60-125) 148.5 (60-125)	Nickel Arsenic Cadmium Chromium Cobalt Copper Silver Zinc Antimony Barum	J (all detects) UJ (all non-detects)	Р

Raw data were not evaluated for the samples reviewed by Level III criteria.

IX. Furnace Atomic Absorption QC

All graphite furnace atomic absorption QC were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for samples reviewed by Level III criteria.

X. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XI. Sample Result Verification

All sample result verification met validation criteria with the following exceptions:

Sample	Analyte	Finding	Criteria	Flag	A or P
All samples in SDG 05D053/K2502714	Antimony	Laboratory method detection limit reported at 0.12 ug/L	MDL should be reported at 0.05 ug/L per the QAPP.	None	P
All samples in SDG 05D053/K2502714	8arium	Laboratory method detection limit reported at 0.60 ug/L	MDL should be reported at 0 05 ug/L per the QAPP.	None	P

Raw data were not evaluated for samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, Site 1, CTO 86 Metals - Data Qualification Summary - SDG 05D053/K2502714

SDG	Sample	Analyte	Flag	A or P	Reason
05D053/ K2502714	86-\$1-108 86-\$1-109**	Arsenic Beryllium Copper	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R
05D053/ K2502714	86-S1-109**	Nickel Arsenic Cadmium Chromium Chromium Cobalk Copper Silver Zinc Antmony Banium	J (all detects) UJ (all non-detects)	P	Internal standards (%R)
05D053/ K2502714	86-S1-108 86-S1-109**	Antimony Banum	None None	Р	Sample result verification

Moffett Air Field, Site 1, CTO 86 Metals - Laboratory Blank Data Qualification Summary - SDG 05D053/K2502714

SDG	Sample	Analyte	Modified Final Concentration	A or P
05D053/ K2502714	86-S1-108	Antmony Beryllium Selenium	0.396U ug/L 0.00426U ug/L 0.46U ug/L	A
05D053/ K2502714	86-S1-109**	Artimory Beryllum Cadmum Selenium Selenium Silver I halium	0.304U ug/L 0.00883U ug/L 0.0025U ug/L 0.46U ug/L 0.0013U ug/L 0.00210U ug/L	A

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CHAIN-OF-CUSTODY RECORD

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The limited are summer zen on the following pages.

Please feet free to call if you page any diestricus concern he phone regular

Sincerally yours.

Kim Y. Pins, Ph.D. Laboratory Director



CASE NARRATIVE

GLIENT: TETRA TECH FW, INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 05D068

SW 5030B/8260B VOLATILE ORGANICS BY GC/MS

Six (6) water samplos were received on 04/14/05 for Volatile Organic analysis by Melhoo 5030B40260B in accordance with USEPA SW846, 3° et.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and salibration were carried out at 12-hour intervel. All QC requirements were met.

Method Blank

Method blank was free of contamination of the reporting limit.

4. Surrogate Recovery

Recovenes were within OC limit.

5. Lab Centrel Sample/Lab Centrel Sample Duplicate

Recovered water within CO limit.

f. Mairly Spike/Matrix Spike Duplicate

two like their sample was designed in this SDO.

7. Sample Analysis

Samples were analyzed according to the prescriber GC procedures. At critise were not

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SW 90303/82008 UCLATILE ORGANIUS BY GC/MS

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CASE NARRATIVE

CLIENT!

TETRA TECH FW, INC.

PROJECT:

MFA, SITE 1, CTO 86

SDG:

05D068

SW 3520C/8270C

SEMI VOLATILE ORGANICS BY GC/MS

Five (5) water samples were received on 04/14/95 for Semi Volakile Organic analysis by Method 3520C/8270C in accordance with USEPA SW846, 3nd ed.

1. Holding Time

Analytical holding time was met.

2. Tuning and Gallbration

Tuning and calibration were carried out at 12-both interval. All QC requirements were met.

3. Method Black

Method black was trae of contamination at the reporting limit.

4. Sumogete Recovery

Recovenes were within OC limit.

Lab Control Sample/Lab Control Sample Duplicate

Receveries were within QC limit.

6 Matrix Spike/Matrix Spike Duplicate

No MS MSD sample was designated in this SDG

7. Sample Analysis

Surpres were analyzed according to the prescribed OC procedures. All crisins large that



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SW 3520C/827UC

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CASE NARRATIVE

CLIENT:

TETRA TECH FW, INC.

PROJECT:

MFA, SITE 1, CTO 86

SDG:

950068

SW3520C/8081A PESTICIDES

Five (5) water samples were received on 04/14/06 for Postudes analysis by Method 3520C/8081A in accordance with "Test filedhods for Evaluating Solid Waste, PhysicaliChemizal Methods", SWR343, 3" ad.

1. Halding Time

Analysisal holoring time was mad

Instrument Performance and Calibration

Initial centration was at five-point for Posteridus, all PSDs were within 20%. All continue calibrations were shallyzed at 12 hour interval and mean recoveries were within 65–115%. Engine and DET breakforch were within OC limits.

3 Method Blank

Method blank was free of confirmation at the reporting limit.

Surrogate flaborsty

Recoveries were within OC limit.

Lab Control Swiple/Lab Gool of Sangh Cupilcate

ARTHURING WORK WATER OF ROOMS

s. Walkin Spike/Metrix Spike Displicate

No sisking completions described in this SCIO.

7 Sample Analysis

Samples were grid great scornario to the monorhed DC procedures. All orders were mo-

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\$435700/8081A PEST: CIDES

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PARAMETERS	(ug/L)	(us/L)	(lug/L)
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ALDRI II	(-FD) 1.011J	. 547	.8991 .0394
HEPTACHLOR EPOXIDE	(NP) .022J	.047	.0094 .0094
GAMMA LHLCROANF	CMD) HID	047	.6094 .6094
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SW3520C/808:A PEST: CIDES

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SW3528C/8081A #ESTICIDES

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CASE NARRATIVE

CLIENT:

TETRA TECH FW, INC.

PROJECT:

MFA, SITE 1, CTO 86

SUG:

050068

SW3520C/S082 PCBs

Five (3) water samples were received on 04/14/05 for PCBs analysis by Method 35/20C/R082 in accordance with Test Methods for Evaluating Solid Waste Physical/Chemical Methods', SW846, 3° ed

Holding Time

Analytical holding time was met.

Instrument Performance and Calibration

initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12 hour interval and all recoveries were within 85-115%.

Method Blank

Method blank was free of contamination at the reporting limit

4. Surroyate Recovery

Recoveries were within GC limit.

Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Mairix Spike/Matrix Spike Duplicate

No MS/MSO sample was designated in this 50G

7. Sample Analysis

Sandles wete attalyzed according to the preactions GC procedures. All criteria were red.



SUB5280/8082 FCBs

Eisen : IGERA 1570 IN., IN., Frujest : MAA, 505E 1, CTD 86 Eatch No. : UScoles Somple ID1 80 - 95 - 10 Lub Somple ID2 80 - 80 - 10 Lub Somple ID2 80 - 80 - 10 Lub Somple ID2 80 - 80 - 10 Lub Somple ID3 80 - 80 - 10 Lub Somple ID3 80 - 80 - 10 Lub Somple ID3 80 - 80 - 10 Lub Somple ID3 80 - 80 - 10 Lub Somple ID3 80 - 80 - 10 Lub Somple ID3 80 - 10 Lub Somble ID3 80 - 10 Lub Somble ID3 80 - 10 Lub Somble ID3 80 - 10 Lub Somble ID3 80 - 10 Lub Somble ID3 80 - 10 Lub Somble ID3 80 - 10 Lub Somble ID3 80 - 10 Lub Somble ID3 80 - 10 Lub Somble ID3 80 - 10 Lub Somble ID3 80 - 10 Lub Somble ID3 80 - 10 Lub Somble ID3 80 - 10 L	But 23: 30: 30: 30: 11: He 5:	The Col Control Co. 173,195 The Col Control Co. 173,195 The Reservation of Artis/2705 The Analyseer (4,18705 20:17) Tution Factor: 56 Tris' LMTSR Moieture IA Moieture IA Moieture IG G01008
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sw3520c/8082 PCEs

Tivet : TLTA TECK FW, INC. FFS.BT : WAR, STE 1, FIG 36 Auto No. : SSOUR Sample 18: 36-51-17 Lab Somp 10: 0058-03 Tab Fits 10: 20160278 Evr Etch 10: cP601/A; Fair 10: Ref.: S0120004	2, 2 2, q; 22		00/12/95 00/14/95 00/14/95 18:40 00/18/95 18:42 95 04/18/95 18:42 44 46/14/98
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> RECOVERY

QC LIMIT

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343526c78983 PCBE

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SW35200/3082 PGPs

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10-133



CASE NARRATIVE

CLIENT:

TETRA TECH FW, INC.

PROJECT:

MFA, SITE 1, CTO 86

SDG:

05D068

METHOD 7470A

DISSOLVED MERCURY BY COLD VAPOR

Five (5) water samples were received on 04/14/05 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3th edition.

Holding Time

Analysis met holding lime criteria.

2. Method Blank

Method black was free of contamination at the reporting limit

Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within OC limit.

Serial Dilution / Post-Analytical Spike

Sample D061-02 from enother SDG was analyzed for serial dilution and oost-analytical spike. All QC requirements were that

Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in the SCG.

6. Somple Analysis

Semples were enalyzed according to the parecribed GC princedures. All critishs were mad.

Samples were analyzed at UF20 due to maids interterence.

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Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, MFA Site 1, CTO 86

Collection Date: April 12 through April 13, 2005

LDC Report Date: May 25, 2005

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D068

Sample Identification

86-S1-123

86-S1-116

86-S1-117

86-S1-118**

86-S1-119

86-S1-120

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value
- A Indicates the finding is based upon technical validation criteria.
 - Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for all individual compounds.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

For the purposes of technical evaluation, all compounds were evaluated against the 20 0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-117 and 86-S1-118** were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

	Concentr	ation (ug/L)	
Compound	88-S1-117	86-S1-118**	RPD
Acetone	100	4.4	Not calculable

XVII. Field Blanks

Sample 86-S1-123 was identified as a trip blank. No volatile contaminants were found in this blank.

Moffett Airfield, MFA Site 1, CTO 86 Volatiles - Data Qualification Summary - SDG 05D068

No Sample Data Qualified in this SDG

Moffett Airfield, MFA Site 1, CTO 86 Volatiles - Laboratory Blank Data Qualification Summary - SDG 05D068

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Moffett Airfield, MFA Site 1, CTO 86

Collection Date:

April 12 through April 13, 2005

LDC Report Date:

May 25, 2005

Matrix:

Water

Parameters:

Semivolatiles

Validation Level:

EPA Level III & IV

Laboratory:

EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D068

Sample Identification

86-S1-116

86-S1-117

86-S1-118**

86-S1-119

86-S1-120

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

The mean percent relative standard deviation (%RSD) for all compounds was less than or equal to 15.0% and less than or equal to 30.0% for selected individual compounds.

A curve fit, based on the initial calibration, was established for quantitation for selected compounds. The coefficient of determination (\vec{r}) was greater than or equal to 0.990.

Average relative response factors (RRF) for all system performance check compounds (SPCCs) were within method criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 20.0% for all compounds.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a FPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

Samples 86-S1-117 and 86-S1-118** were identified as field duplicates. No semivolatiles were detected in any of the samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA Site 1, CTO 86 Semivolatiles - Data Qualification Summary - SDG 05D068

No Sample Data Qualified in this SDG

Moffett Airfield, MFA Site 1, CTO 86 Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 05D068

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Moffett Airfield, MFA Site 1, CTO 86

Collection Date:

April 12 through April 13, 2005

LDC Report Date:

May 25, 2005

Matrix:

Water

Parameters:

Chlorinated Pesticides

Validation Level:

EPA Level III & IV

Laboratory:

EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D068

Sample Identification

86-S1-116

86-S1-117

86-S1-118**

86-S1-119

86-S1-120

^{**}Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whitether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisli Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level IIII criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 86-S1-117 and 86-S1-118** were identified as field duplicates. No chlorinated pesticides were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA Site 1, CTO 86 Chlorinated Pesticides - Data Qualification Summary - SDG 05D068

No Sample Data Qualified in this SDG

Moffett Airfield, MFA Site 1, CTO 86 Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 05D068

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Moffett Airfield, MFA Site 1, CTO 86

Collection Date:

April 12 through April 13, 2005

LDC Report Date:

May 25, 2005

Matrix:

Water

Parameters:

Polychlorinated Biphenyls

Validation Level:

EPA Level III & IV

Laboratory:

EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05D068

Sample Identification

86-S1-116

86-S1-117

86-S1-118**

86-S1-119

86-S1-120

^{**}Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
 - Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance data were not provided and therefore not reviewed.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisii Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Haw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report.

XIV. Field Duplicates

Samples 86-S1-117 and 86-S1-118** were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, MFA Site 1, CTO 86 Polychlorinated Biphenyls - Data Qualification Summary - SDG 05D068

No Sample Data Qualified in this SDG

Moffett Airfield, MFA Site 1, CTO 86 Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 05D068

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Air Field, Site 1, CTO 86

Collection Date: April 12 through April 13, 2005

LDC Report Date: May 23, 2005

Matrix: Water

Parameters: Metals

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc./Columbia Analytical Services,

Sample Delivery Group (SDG): 05D068/K2502714

Sample Identification

86-S1-116 86-S1-117 86-S1-118** 86-S1-119 86-S1-120 86-S1-120MS

86-S1-120DUP

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 7 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B and 7000 and EPA Method 200.8 for Metals. The metals analyzed were Aluminum, Antimony, Arsenic, Barium, Beyllium, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (February 1994) as there are no current guidelines for the methods stated above.

A table summarizing all data qualification flags is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from specified protocols or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- J Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable.

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Beryllium Copper Nickel Selenium I natium Zinc	0,0000 ug/L 0.0010 ug/L 0.031 ug/L 0.74 ug/L 0.00027 ug/L 0.00027 ug/L	All samples in SDG 050068/K2502714
ICB/CCB	Animony Arseric Beryllium Cadmium Chromium Chromium Cholatt Nickel Selenium Silver Thallium Zinc	0.014 ug/L 0.087 ug/L 0.0890 ug/L 0.071 ug/L 0.071 ug/L 0.082 ug/L 0.22 ug/L 0.28 ug/L 0.01 ug/L 0.2500 ug/L 0.2500 ug/L	Ali samples in SDG 05D088(K2502714

Sample concentrations were compared to the maximum contaminant concentrations detected in the ICB/CCB/PBs. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

	Analyte	Reported Concentration	Modified Final Concentration
Sample st.S1-116	Antimony Beryllium Setenium	0.214 ug/L 0.00118 ug/L 0.44 ug/L	0.214U ug/L 0.00118U ug/L 0.44U ug/L
se-S1-117	Antimorry	0,204 ug/L	0,204U ug/L
	Beryllum	0,00052 ug/L	0,00052U ug/L
	Selenium	0,48 ug/L	0 48U ug/L
86-S1-118**	Antimoriy	0.202 ug/L	0.202U ug/L
	Selenium	0.46 ug/L	0.46U ug/L
86-S1-119	Antimony	0,252 ug/L	0.252U ug/L
	Cadmium	0,0056 ug/L	0.0056U ug/L
	Celenium	0,44 ug/L	0.44U ug/L
	Silver	0,0031 ug/L	0.0031U ug/L
66-51-120	Antimony	0,512 ug/L	0.012U ug/L
	Selenium	0.54 ug/L	0.54U ug/L
	Silver	0,0029 ug/L	0.0029U ug/L

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

Δnalvte	%R (Limits)	Flag	A of P
Arsenic Beryllium Copper	56 (75-125) 69 (75-125) 73 (75-125)	J (all detects) UJ (all non-detects)	A
	Beryllium	Arsenic 56 (75-125) Arsenic 69 (75-125) Beryllium 73 (75-125)	Analyte %H (Limits) Arsenic 56 (75-125) Arsenic 69 (75-125) Beryllium 73 (75-125) UJ (all non-detects)

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

All internal standard percent recoveries (%R) were within QC limits for samples on which a EPA Level IV review was performed with the following exceptions:

Sample	internal Stendard	%R (Limits)	Analyte	Flag	A or P
86-S1-118**	Nickel-61 Indam-115 (4/29/05) Indium-115 (4/25/05)	139 (60-125) 134.7 (60-125) 167.4 (60-125)	Nickel Arsenic Carlmium Chromium Cobalt Copper Silvar Zinc Antimony Banum	J (all detects) UJ (all non-detects)	P

Raw data were not evaluated for the samples reviewed by Level III criteria.

IX. Furnace Atomic Absorption QC

All graphite furnace atomic absorption QC were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for samples reviewed by Level III criteria.

X ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XI. Sample Result Verification

All sample result verification met validation criteria with the following exceptions:

Sample	Anaiyte	Finding	Criteria	Fing	A or P
All samples in SDG 05D068/K2502714	Antimony	Laboratory method detection limit reported at 0.12 ug/L	MDL should be reported at 0.05 ugiL per the QAPP	None	Р
All samples in SDG 05D068-K2502714	Barium	Laboratory method detection limit reported at 0 60 ug/L.	MDL should be reported at 0.05 ug/L per the QAPP	None	Р

Raw data were not evaluated for samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags have been summarized at the end of this report.

XIII. Field Duplicates

Samples 86-S1-117 and 86-S1-118** were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

	Concentra	ntion (ug/L)	
Compound	86-S1-117	86-S1-118**	RPD
Antimony	0.204	0.202	1
Arsenic	2 090	1.770	17
Barium	130	130	0
Beryllium	0.00052	Ue0000.0	Not calculable
Cadmium	0 0383	0.0413	8
Chromium	0.263	0.257	2
Cobalt	2.7400	2.4000	13
Copper	0,3290	0 4340	28
Lead	0.007	0.020	96
Nickel	5.410	5.270	3
Selenium	0.48	0 46	4
Silver	0 0150	0.0151	1
Zine	6 460	7.150	10

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, Site 1, CTO 86 Metals - Data Qualification Summary - SDG 05D068/K2502714

SDG	Sample	Analyte	Flag	A or P	Reason
05D088/ K2502714	86-S1-116 86-S1-117 86-S1-118** 86-S1-119 86-S1-120	Arsenic Beryllum Copper	J (all detects) UJ (all non-detects)	A	Matrix spike analysis (%R)
05D068′ K2502714	86-\$1-118**	Nickel Arsenic Cadmium Chromum Cobalt Copper Silver Zinc Antimony Banum	J (all detects) UJ (all non-detects)	Р	Internal standards (%R)
05D068/ K2502714	86-S1-116 86-S1-117 86-S1-118** 86-S1-119 86-S1-120	Antimony Banum	None None	Р	Sample result verification

Moffett Air Field, Site 1, CTO 86 Metals - Laboratory Blank Data Qualification Summary - SDG 05D068/K2502714

SDG	Sample	Analyte	Modified Final Concentration	A or P
05D068/ K2502714	86-S1-116	Antimony Beryllium Selenium	0 214U ug/L 0.00118U ug/L 0.44U ug/L	A
иъриня; K2502714	86-51-117	Antimony Beryllium Selenium	0 204U ug/L 0.00052U ug/L 0.48U ug/L	۸
05D068 K2502714	86-S1-118**	Antimony Selenium	0.202U ug/L 0.46U ug/L	А
05D068: K2502714	86-\$1-119	Antimorry Cadmium Selenium Silver	0.252U ug/L 0.0056U ug/L 0.44U ug/L 0.0031U ug/L	A
05D068 K2502714	86-S1-120	Antimony Selenium Silver	0.312U ug/L 0.54U ug/L 0.0029U ug L	A

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CASE MARRATIVE

CLIENT-

TETRA TECH EC, INC.

PROJECT:

MEA SITE 1, CTO NO

300

05,4698

SW 50169/52600 VOLATILE ORGANICS BY GC/MS

Three (3) water samples were received on 10/06/08 for Valsille Organic and (yes by Method 5030B/8260B in accordance with USEPA SWISE, 3" ed.

1 Holding Time

A halyheal holding time was met

Tuning and Californian

Tuning and calibration were carried out at 12-hour interval. All GC regularments, were met

3. Wethod Blank

Method blank was free of contamination at the reporting limit.

4. Surrogale Receivery

Recoveries were within QC intil

Lab Centrol Sample/Lab Control Sample Duplicate

Frequeries were within OC Last

Matrix Spike/Matrix Spike Cuplicats

No MS/MSD sample was designaled in this SOG

Sample Analysis

Samples were enarged according to the prescribed QC procedures. All onless were treet.

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CABE NARRATIVE

CLIENT:

TETRATECHIEC. INC.

PROJECT:

MEA, SITE 1, CTO 80

306;

064038

8VI 35200/8270C SEMI VOLATILE DRIGANICS BY GOINS

Two (2) witter surples were received on 10/95/05 for from volatile Organic analysis by Method 35200/82700 in accordance with USSEA 53/846, 2rd at

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12-hour interval. All GC regularments were met.

J. Mathod Brank

hibthod blank was true of contamination at the reporting limit.

4. Surrogale Recovery

Recoveries were within OC unit.

5. Lab Control Sample Lab Control Sample Bypicata

Recoveries were within QC (milk

Marrix SpikerMatrix Spike Displicate.

No M5/ASD sample was designated in the SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All antiqua were mak



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CASE HARRATIVE

CLIENT: TETRA TECH EC, INC.

PROJECT: MF4, SITE 1, CTO 36

600 06J636

SWSS20C/8681A PENTICIDES

Two (2) water samples were received on 1008/05 for Peeticides analysis by Method 95290/8081A in accordance with Ties Methods for Evaluating Solid Waste. Physics/Chemical viscosity, 59/986, 3° ed.

5. Holding Fime

Analytical halding time was mut.

Instrument Performance and Calibration

Initial califoration was at five-point for Pessicides, 40 7/50's were within 20%. All continue contrations were ampliced at 12-from interest and meson incoveres were within 36-14%. Eviden and to the contration were within 00 finitis.

3. Method Black

Melbod plank was free of consamination of the respring limit.

4 Surrodate Recovery

Feneralism were within GC line.

Lab Control Sample/Lui; Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spiks/Matrix Spike Dupitcata

No MSWASD sample was designated in the SDG.

7. Sample Analysis

Samples warp analyzed according to the presented QC procedures. All DC DM://ik were met

When sample mastils are continued by a second column, the interior personnel difference (RPD) interiors the way exists is admitted. RPD in less than 44/m, and ofference (RPD) is not than 44/m, and no existence of chromosopheric protections. The higher result is exported. If APD is not than 44/m, and repeated that 44/m, the chromosopheric protection is not provided to existence and in the color of the personnel continued to exist and in the color of the continued to the color of the continued to the color of



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CASE NARRATIVE

CLIENT: TETRA TECH EG. INC.

PROJECT: MFA, SITE 1, CTO 86

SDG: 05J036

METHOD 7470A

DISSOLVED MERCURY BY COLD VAPOR

Two (2) Water samples wors received on 10/06/05 for Dissolved Meccury analysis by testinot 74/04 in societismics with "Test Methods for Evaluating Sold Waste, Physicagonical Neutrols," SW848, 3^{eth} officer.

Holding Time.

Analysis met helding fine criteris.

2. Metned Black

Method blank was tree of contamination of the reporting limit

3. Lap Control Sample/Lab Control Sample Duplicate

Lab control results were widnin QO firsit.

4. Senal Dilation / Post-Analytical Spike

Sempte (653.10 from another SDG was analyzed for serial distribution and postanalytical spike. All CiC requirements were mist.

5. Matrix Spikeringertx Soile Duplicate

(WS/EIST) sample was not designated in this SDG.

6. Sample Austysis

Samples were analyzed according to the prescribed CIC propadures. All criteria were meli-

Samples were includy analysis at DF 20 due to marrix interferance of Inch sor sevel.

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Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Air Field, Site 1, CTO 86

Collection Date: October 4, 2005

LDC Report Date: November 17, 2005

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05J036

Sample Identification

86-S1-137 86-S1-124

86-S1-124 86-S1-125

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (\vec{r}) were greater than or equal to 0.990.

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all volatile target compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

Sample 86-S1-137 was identified as a trip blank. No volatile contaminants were found in this blank.

Moffett Air Field, Site 1, CTO 86 Volatiles - Data Qualification Summary - SDG 05J036

No Sample Data Qualified in this SDG

Moffett Air Field, Site 1, CTO 86 Volatiles - Laboratory Blank Data Qualification Summary - SDG 05J036

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Air Field, Site 1, CTO 86

Collection Date: October 4, 2005

LDC Report Date: November 17, 2005

Matrix: Water

Parameters: Semivolatiles

Validation Level: EPA Level III

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05J036

Sample Identification

86-S1-124 86-S1-125

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (\vec{r}) were greater than or equal to 0.990.

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all semivolatile target compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10 14 05	Bis(2-chloroisopropyl)ether 2,4-Dinitrophenol 4-Nitrophenol Benzo (k)fluoranthene	34.9 33.8 25.5 33.6	All samples in SDG 05J036	J (all detects) UJ (all non-detects)	А

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, Site 1, CTO 86 Semivolatiles - Data Qualification Summary - SDG 05J036

SDG	Sample	Compound	Flag	A or P	Reason
04J036	86-S1-124 86-S1-125	Bis(2-chloroisopropyliether 2,4-Dinitrophenol 4-Nitrophenol Benzo(k)fluoranthene	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)

Moffett Air Field, Site 1, CTO 86 Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 05J036

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: October 4, 2005

LDC Report Date: November 17, 2005

Matrix: Water

Parameters: Chlorinated Pesticides

Validation Level: EPA Level III

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05J036

Sample Identification

86-S1-124 86-S1-125

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III. Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits with the following exceptions:

Date	Standard	Column	Compound	%D	Associated Samples	Flag	A or P
10/13/05	\$J13003B/4B	RTX-CLPESTII	beta-BHC	19	All samples in SDG 04J036	J (all detects) UJ (all non-detects)	A

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

The individual 4.4'-DDT and Endrin breakdowns were less than 15.0%.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and Reported CRQLs

Raw data were not reviewed for this SDG.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86 Chlorinated Pesticides - Data Qualification Summary - SDG 05J036

No Sample Data Qualified in this SDG

Moffett Airfield, Site 1, CTO 86 Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 05J036

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: October 4, 2005

LDC Report Date: November 17, 2005

Matrix: Water

Parameters: Polychlorinated Biphenyls

Validation Level: EPA Level III

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05J036

Sample Identification

86-S1-124 86-S1-125

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance data were not provided and therefore not reviewed.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and Reported CRQLs

Raw data were not reviewed for this SDG.

XIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

No field duplicates were identified in this SDG.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86 Polychlorinated Biphenyls - Data Qualification Summary - SDG 05J036

No Sample Data Qualified in this SDG

Moffett Airfield, Site 1, CTO 86
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG
05J036

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Air Field, Site 1, CTO 86

Collection Date: October 4, 2005

LDC Report Date: November 14, 2005

Matrix: Water

Parameters: Dissolved Mercury

Validation Level: EPA Level III

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05J036

Sample Identification

86-S1-124 86-S1-125

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP was not utilized in this SDG.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
86-S1-128MS/MSD (All samples in SDG 05J036)	Dissolved mercury	-	67 (75-125)	-	J (all detects) UJ (all non-detects)	Α

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XI. Sample Result Verification

Raw data were not reviewed for this SDG.

XII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, Site 1, CTO 86 Dissolved Mercury - Data Qualification Summary - SDG 05J036

SDG	Sample	Analyte	Flag	A or P	Reason
05J036	86-S1-124 86-S1-125	Dissolved mercury	J (all detects) UJ (all non-detects)	А	Matrix spike/Matrix spike duplicates (%R)

Moffett Air Field, Site 1, CTO 86 Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 05J036

No Sample Data Qualified in this SDG

NUMBER 10839 CHAIN-OF-CUSTODY RECORD

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1. Holding Time.

Analytical holding, time was met.

Imiting and Calibration

Turning and calibration were carried out at 12-door everyall. All QC requirements were met.

3. Medical Blenk

Method blanks were bee of contimination at the reporting and

4. Surrogate Recovery

Recoveries were within Cr. fand.

Late Control Sample/Lab Control Sample Oupricate

Recoveries were within QC limit.

Matrix Spike/Matrix Spike Suplicate

Semple JC53-10 was spiked. All recoveries were within OC limit.

7. Semple Autolygie

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CASE NARRATIVE

CLIENT: TETRA TECH EG, INC.

PROJECT: MFA, SITE 1, CYO 86

SDR: 95,033

SW 1520C/52700 SEMI VOLATILE ORGANICS BY GOMS

Ten weter semples were received on 10/07/05 for Semi-Volatile Organic analysis by Method 35?0C/8270C in accordance with USEFA SW845, 3rd ed

Holding Time

Analytical holding time was met

2. Tuning and Calibration

Turning and cohoration were confed out at 12-hour interver. All QC requirements were met.

3. Method Biank

Method Slank was tree of contamination at the reporting limit.

4. Surfigate Recovery

Sacretes were wathr QC limit.

5. Lab Control Sammeh an Control Sample Donficate

Recoveries was within OC livin

6. Matrix Spike/Natrix Spike Dualicans

Sample J053-10 was spiked. All recoveries were within QC limit

7. Sample Analysis

Samples were energized according to the prescribed QC procedures. All chena were met.

The last internal standard in sample J053.12 in both 1X and 2X analyses were out of CC probably due to make interesting all sens of results were reported.



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³¹ Reporting Limit (1): Entroy by Boom Ainst time I detablishments (2): Expect to Automator From Octamos Joseph



GASE NARRATIVE

GLIERT: TETRA TECH EG, ING.

PROJECT: MEA, SITE 1, DTO 88

800: 054653

PESTIDIDES

Ten (30) water exemptes were received on 10,01705 for Poenorics auxilysis by Metinac 35200/56814 in socionarios with Test Methins for Evaluating Gales waste. Physical Chemical Methods, 5W346, 3° ec.

1. Holding Time

ew ernit golbtut teoliylene.

2. Instrument Performance and Calibration

Inflat calibration was at the parallelist Pasacions, at RSDn were voltan 20%. At explana calibrations were availabled at 12 had interval and mean recovaling were within 86-15%.

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Welfood Blank

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Surrogate Recovery

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5. Lab Control Remple/Lab Control Sample Duplicata

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6. Midrix SaliceMetric Spile Suplicate

Sample J053-10 was spiked. All resoversis were within GC wirk.

7. Sample Analysis

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fine Engennes 10/15/05 14:00
DECE MAN 1740 10/15/05 23:12
pring ran Apphar 1-95
MESTIVE LATTER
X describe = 96
Instrument for a School

	W8-504-75	701	mi
PAGAM, IT DE	OWNER	C0805.X	mally.
	1007		
SEE-MAILE	THE VALUE	-1.46	-4865 3501
SAMIS-BAT C. THO 486 S	1903 190	-786	
080-24-08C	CRED (COR:	. 6460	-0095 (0095
PET TACHLO?	-1.1 CND T	065	
DEL A-RIE	ERD & Luty	2465	10005 10005
ALICE SE	DART 0.0573	048	_DMG 1995
DESTACELOR EFERINE	(1983 90)	-,667	11005 0000
GAMMA-CHUGES-ARE	CORP.) (MIT	-,0525	-UNV: THRE
11 HIM THE ORDINE	1801100	050	-0000 .5996
REPORTED AND A	10001100	715.01	J458 J. 1128
L. A.1-1984	contino	,035	ARATUREE.
Partial 9	C287-77 1869	19	385 . 3%
E lagre + lá	DEED 600	,035	
+.41-005	TF 671, 888	1690	579., 1668
ENDULULFAN 1	ENEX FAMILY	(196	.519 .079
L. C DRY	THE YES	1885	
SHEATH A TENNIE	CEGIT was	,0956	
FRESDUCIAN SUNTAILE	THEY SUD	1356	TOTAL TO 18
- MDC I K RETURE	CHILITAD	.695	wilej me
ARTHOUGH DY	Leio IT 60	_48	0951, 1955
proceeding 56	1,000 2 (000)	2,8	17,811,2
SINFORM TO PARAMETERS	5. BEKÖVER C	gt Little	
1-			
OF THE PROPERTY AND ADDRESS OF THE PARTY AND A	(87) 55	30-130	
GE CATHLISTOR (FRENIT)	102)105	30 150	k.

 $t \mid z$ becoming that the f -as follows , fight at f means as smooth column . If proceeding the expectations



1435207730115 nesticipes.

	F 12 CT 2 E	CHESSES STREET	C TOTAL SECTION					
Chart Time tack Sc. Inc.		ARTHUR ENTERED TO A	CHARGOSTER					
Fraction NEA, 3748 T TTG WA		Dilyo Executives						
Factor No. : 052083								
Couple (1) 80 0 - 136- Lab Reep (0) 185-15 Lab Rice (0) 52/30(5) 1 Sat Stel (0) 0 00000		Date Extracted Tolling land DELS SHEEVEST 15/15/05 22/27 DELSTON TACKET: _SA MOSTON _ BATE & Wolston _ BA						
					Instrument of T			
					40 WOOD 1 100 TABLE	discontinues.	Tanada and and and a	
						PC90 (6		
		Domine Tip	(up/c)	(har/1.2	Thirt			
/	Verifice 1	Tongs A	Vag. 1					
20.996-201	Debright		Mary Common Comm					
GOPHAN-SAIT (LANGUE)	Later - Bay		(894 June 51					
EE TA-PINC	18031-0110		0096 / 0094					
MEPT SCHOOL	, sed leste							
OFLIG. 68.	680 100	.467						
ALDE IN	1903 [.03.]	,0%7						
rE4 (Aria) On - Figs. (at	0903 (80)		DAME LODGE					
SKRNA-CALCADSAR	-8111J [(No.1)		onsi, asid.					
As EN COST CORP.		.007						
Lapitop, Aug.	(MC) (Mn)	.007	_0.090 _D0%_					
5,811061	CHICACHO	- IV-3						
DICKTORN	Leni 1 Selbi	.000						
EMOR: 0		*10						
- T. T. C. S.	Jaky Letts	.69%	WED 030					
DARKEN FOR 11	16611 160	1,0004	R281 U25					
1.1 (61	(107) (65)	.094	.73% . here					
FREE A SECOND	CHRISTIAN	10(5)						
SPOURL FAR LIFTER	1,807 (1987)	DF4						
EMPLY OF THE	5500 (60)	. U/N+						
es l'addyxants	CRES (NR)	-695	.87W _B10					

AND ME

(869 im)

REMOVERS

(75)169

SERESHMEN STREET, TETRACIONES RESTURNE OUT WEST CHOCKLARY

CHARLE STOR.

Tracker space

(98) (48) 34-130 IN : Executing limit:

vert act in foliated as from calment a fight on | related we become tallings

() including the raphitum accounts

on tither

39-136

1.2 1.3 3.8



9957311/8061A PERTICIPES

COUNTY - VETTA LEGA EG, 190.	gard cattleaced: MARSON
Project : BPA, etch , cho &c	first versions (5x07/05
MAKEY No 054053	MATE EXPERIENCE EDITION (A 10)
March 10: 80:51-195	Bets Malyund: (7/15/07 23)50
of Approvious 1953-Ge.	Prication Factors
an file (0) sitadin.	HATTIN : WILES
LAC BOOK TO: CRACEPO	2 My Filtran 6 100
ALTE: 50+2 52730194	Trestrument in Corpus

	9857A TS	-0	801
TERMET, ES	CONT. 2	THEFT !	ALEVA?
11001	10 -		
ALF DATE OF THE	FEB / 180-	-42	03 (10)
TRANSFER (1 TRIDANET	UNEX 140	- 1/5	.014.01
RETAINS.	C86/2 (80)	- 25	-071 61
HISTACTICOS	SEA HOUR	-175	811.91
DELTS-MIKE	CHD) 1880	- 45	-01; 41
£ (D(2.1))	. 6263 (+ NOT	.45	211/01
HET TACK OF FERMADE	MARK REPORT	_100	E11.700
GARRY THERMAN	e pari a žine:	.49	.01
A LINES I CIPLINDAME	2490 B	95	101 (00)
SWOOSIN JAN 1	7 1775 7 THE	405	. u3 . 13
A product	1807 (80	-1	.03 .03
D.DB.USTR	THE R PE	.2	11111
CARRIE.	1967 90		.D2 1/82
C ! - BUP	4,905/0,200		.03 .03
EMPOSIS FAM TO	790 7 (40	_1	150 .02
-,41-BBT	160 Y 60	-1	1051.02
EMPRIM ALDERY	1807 (80		001.6
CHOCCULFAN SULFAIL	CHET HID	-	40.100
ENDINGER RETURNS	7800 1-160	-63	407.02
DETROPO (NO. 8)	C00 57 MD	1,5	17.7
CONFIGNE	(BG) (B)	3	12(1-2)
SUMMODATE TARRECTERS.	2 SECOVERY	SE LIBET	
SELECTED OF B-27 FAR	(52)/75	30,156	
SECURIAL DISTRICTORS	1951.795	30.110	

 t_L , Resulting Unit Left in Times , Algor of Light with Left in) is related to these tolerance . In Table the resulted by take



PERTICIONE

Client - 75164 TSCN EG. DE	Date collection / 55/80
Bridgett : WW, 5178 L, 270 56	rists Sens (viel: 10/07700)
Sains No CBUSSI	PULL EMPLACEMENT OF THE PARTY O
Sample 18: 95 61-156	Pate Restyand: "Il/ley08 15 to
Lob Pour In: 4075 OT.	Situs conjector: W
106 Fr(0 b 52130599	MATERIAL TRANSPORT
CAN FROM THE BRAINSON	2 mm / 2 (34 m) 175
Control Red = 52120364	Investment to ; G07005

	RESULTS	24	With
1 (1 (AE) E5 (X (289) 2 8	109717	/ Upprilar
		110001	1401
A SIAN BIRE	(967)190	440.	(1997) 10091
CHAPTE-BIG (ETSUITED)	CHLY BID	250	-0097 1000
BEYA-PHU	(841,636)		_C90 0855
REPTACELOR	1.6 (80)	599	-6097 D097
DELLA DRI	199.0166	757	_Unpt _ 0097
VICINITS.	_0.66 V 190 V	74.0	(F-7 (HQ)
(SPYACHUS FROXIDE	resila (Mn	- 345	data bas
Carella-Citterpholes	Cathira Late	144,5	-Covy 0073
at the condenses	(BD 2 MU	25.9	JOSEP 10097
EMPLEMENT	1.65 () 66.	20.9	40g ID9
n A 108/rs	1825/82	397	1009 009
premela	48677 865	-19	1007 992
120514	1805 280	677	.0591 .019
4.61-70	1832 85	277	829 725
(16503) EMB (1	1000 100	297	, (mile) , (1999)
4,41-201	7 M/ 12 Late:	377	etc. 265
SIMPLE ALLENDE	1760 (1740)	797	1046 Div
SABURULAMI RALANTE	CHD Y END	197	(0.9) 019
FIRE R SETTING	(ta) - Dec	597	210 [915]
NATOCKELIN OF	286 (680)	169	(09) 097
TORARYIUM	sed y live	2,9	1:4 7.2
SURPLIES FORWERINGS	we could sty	GC LINE	
1 -1 - 11 1	X 1 =		
-Engagement & XYLUAL	1780179	20-150	
SECATILITETISPHENS.	199) [98	30.750	

It , dispersion that Left of the retired or that extent : figure of (receive to bear C column () included the reported salver.



9435204/9781Y3 (1997 11 (0)) 8

Citient Tittel rich ic, 78%.	
Printed NEW, GITT 1, CTD SC	pure Recolumn 13/45/05
dutotr No (%:10%)	grant Extractoris Toy I falls 14 and
Sand C 15: 81-31-128	Dure Analyzest 78/15/05 63:15
-46 Sago U. VIET-02	Undrich Fabrary 64
Lab 4716-191 x1738698	Matrix + Galet
FAY BOOK ID: CRISSING	OF MOVEMBER 1 165.
Let the Ref. 84136352	Environment (15) = 00x1008

	T1.707.17	RE	16.
DAMAGREY ERIS	\$485x1.7	c ((g) 1.)	11497.1.5
ALVHS-5HC	5 mm x 114m	54.7	34016-634064
GMMN-ENC CLEMPANCE	:707-12	.047	10895 C0294
EF (Antile)	(ND) (INF)	047	.0296094
JOS LACHEON	(C35, CLCS) T	10,7	_80UL _L696
DEL (4-08)	(50)	247	_UUS4 1.0899.6
Sugar ett	. 0 74.1 CMO F	-567	-0094 . 8094
neviaceant lengths	1601 (60	DAY	Fort. 6866_
CANGE-THI (PROSA)	c play j t vela	857	_120% - 100% -
ALC: A CRITICIPANE	FR03 560	- DLC	JUNE 1, 1855 -
DRIGOSHEAR I	CHUT IND	047	-035 . 628
was not	THOTHER	115%	200 1000
PILLORIA	CNEO ME	-19	-904 1.094
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4Ca1-980	CND: HIT	6,4	1454 1 925
epinosturi Nr. 12	cup 5 (sm)	6.94	H19 / 5/19
510000	CHR. 3 BE	65	11197 M 19
code to Electron	(2003) (40)	,709.4	
ENICSIA SAN CILIZATI	CND 3 Like		2007 1000
Gently parties	Children (1986)	-,010	_0191.078
METHOR / CITI CS.	CHC 2 1 Hel	245	
FOVERFERE	1100.5 (167	2.8	4,6,1,2
SURRESHIEF FAMILY (FRE	FED. OVER1	GC LIMIT	
DETACH SHOW MALES	1,35 (AT 1,750 (AH)	30, (3),	

No. approving this term colons, filter of | valued to around colour to proving the expected section to proving the expected section.



SHEEDER, BONTA PEST LODGES

Table 1 (1974) TOOL FT. 1 (197	Date Collection 10/06/70 Date Reportsons (0/1/06/10) Date Experience (0/1/06/10) Date Experience (0/1/06/10) Date Experience (0/1/06/10/06
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	DECU-75	R) new,
PARMETER	(ug/1)	(up/L) Cus/L)
PARAMETERS	200,000	
	(30.1160	1967 40194 miles
CT SHIP -E HC	(ND) HE	267 .0096 7894
GAMMA-2H. 1 L3 BLAKE 1	(MD) 1.015J	, may
SETA EHC	0491(80)	.047 .0004 .0504
NEPTACHURI	(ND) hav	Wat
SE. TAIETE		661 .000 5004
ALDRIN.	Least 7 FILL	1947 . m95 Links
REPTATRICUL SECRIFIÉ	C144 4 15-0	007 Sesul (mish)
GARRA - CHLORI AND	C162 x 780.	097 - 699 - 7594
ALPHA-CHLOMARY	4 180 × [180	Teb 1 1886 Tabl
ENDERGRAPHIA	2 mg 2 mg	
	1407, 80	
11619819	1 Page 1 19/81	
Geral N	(MS) (MS)	
n at Figo	Jam s Isla	200 640 - EB
Tennsult Alc 11	2440 t \$160	074 INT. ENG.
	* 98Y 3 1044	_090 ,0191 /015
4,41100	Um 15 WC	.650 ,0191.619
SHOW IN ACCEPTANT	19913 1853	70, 019 019
EMPRISHERAN 184 FATE	(80)(80)	-094 - 079 679
ENDU-M DETCHE	CME 5 181:	.47 .62-1,096
SELEGICITISE CR	(10) [10]	0.8 h211.2
TONA THE	(1997)	
	K RECOVERY	CC AMIN
SMERVLAIT THUS FIELS	I- MELDINA	
	(851)88	30 (34
TE LABORITATION IN TALE AC		30-136
OF CALIFORNIES HERE	296) (90	

ii. : **equating fight**
left of [] **equated online : flight of [] respect to secure column
. I instinct the reported online.



5655200703 A 7757104655

THE TELL TELL TELL ET, INC.	Switch Collections 10/08/05
Project : 194, SITE 1, CTC 86	Sado Residente (0,007).01
Suton Wo : 09405%	This Definition: 10/15/05 Udds
5 mptc (b) 88-51-129	Date Makiyrada 10/46/05 (5) GC
Lina Storp VII: 2005-11	Billieton Dactor: 197
130 File (3) Si 30-ca	Military C MATER
Lat from the chapter?	12 Motorana e Ma
SWLIB: But in SWIBOOM	mathematical and a contribution
SECULTARY CARRESTS OF THE SECU	and the second state of th

	669/075	2), 1991.
NAME OF THESE	Garyn. 1	COMPLY CONTRACTOR
	W0000-00	
11 PHA-1 Ho	(MS 5 1HD)	1200 (COFF) (MC
SMALL STREET	CHE'S THE	,259 ,509T UES
ETR-FHC	(\$MD5 3017)	219 (0.097) (0.09
EPTACH OF	1.0227 -011	(40p (19ph), 40p
OEL A-Uni	(600 flic)	200. Teles, 1955
M. DE TH	enst Itsh	.049 .9057 .005
EFTACHION ENGLISH	(90) (90	246 (0027) 009
SASPA CIN OFFINIC	160.180	. DIR . (0197) . 607
LERN-CHI OPPOSIT	DWD T NO	.009
EIRODUU-FAN	1 105 1 (=0)	(9) (027), 629
4	0801 50	3017 1927 1929
(FLIGHTS)	(1m3) hg	.19 ,287 ,792
NOT II	(MIN 1995)	JAN 1848 1118
. 61-500	(46 T [M)	11997 M29 429
appear FAR TT	(100.3 700	.017 .6161 .11
41-891	(80) 1, 80	.897 (019) 77%
SDEIN ALDERFEE	(DMT TMI)	est (0)0 nts
MESON LIM DULFAL:	4800 (M)	. ree7 . 450 D 26
SACULA SELOME	CMS-0 TMD	, 1607 LOTS 1000
SETATE VEHICLE	CHECKER	.46 .007 .767
USAN HEAL	(40.0 (40.0	1.6 1.2[7.2
DESCRIPTION VARIABLES	Y RECOVERY	40 CHO

TELLOCAL CHILD IN SYLENG	70 (472)	35-116
DET NUNLIFORM PATHEL	(1967) (95	20-200

2. I describe limit version | its relating or item (distant) Prairies | remained to heaved become | | | included the preprietal column



BUBSPOOKSONA PESYTEMBA

		cal feature	
STAME STRAFFER AG SAC			
thoughost 3 MPR, 21ff 1, CVO 5	P 216	(See Liest)	CONTRACTOR TO CO
fruit Ch. Wei / Seditiful	5050	Accrected:	Ohr Chab de la
Sanota 10:1 88:85-170	DASK	Descyzed:	Dringer of
ate Savel 101 (093112		etan Fustor	ALC: NO
Lab P Ld To: SITESION			
FAIR BYON D. CF. China			MA.
Cat Ho. Bet 53146258	[16]		actistic
recommendation of the second s			NAME OF TAXABLE PARTY.
	19050615	51	Nov
PARAMETERS	109427	1,007.1	(up
J LPAW-DEC	2868/166	14.59	.5097 .5797
LENNA-BUY INCHASA	1895 No	-049	1097 8997
BATEA-BHC	19 (4-25)	11/10	mg7 Tyru7
NESTATING!	2.E 1801	.04%	- ug/97 _ H294
OFF IN-THE	.0121 (80)	.7045	- GENT . USH
A.5818	-u73 (1601)		_00571,00W
REFLECIALISE PHONOINE	THE HAD	,64.9	2007 3047
DAMES - CHARLESONS	(60017 (446)	,659	116971,2097
SLEW-CH CBUSE	(\$470 000)	,049	-0097 1909
19070Fal. AR.	(40) (1.005	,00%	-687 199
4.4°-50E	Und : I nap -	.297	10351 1655
OTELPRIA	7980-5 Take	19.	-697 (797)
DORY	-0361 cMU1	, 597	1101 7110
4. 4 * -786.	. Office of Landing	,097	_4E94_8E9
PROCESTS SW. 11	1923 / CRb (1357	4010 1010
0.47 000	-320H TMES	(1997)	0.15 12 12
DAME OF SELECTIVE	(HD) ND	.997	210 219
CARDON LAW SOLLEY	T180 2 \$150e	097	2191-119
Files 14 KZ (OM)	48101(-8020)	.097	18 Sept 4.54
WETWOOTS AND THE	(80 / 100	.59	197 197
DIRECTOR.	(86) (90)	2,9	15118
SUPPLIANT PARMETTE:	A FEDDRALLY	THE LIM	
	See 15 Tes		
or magnature in AVLIDE	1740 67	39-15	
DECADADOS ON PRESENT.	(56) 76	30-12	

 $g_{\rm U} \equiv$ Generating that f , we call the second of t



DASE NAMEATIVE

CLIENT:

TETRA TECH EC, MC.

PROJECT

WEALBITE 1, CTO ME

SDG:

05,1055

SW3523C/8682 FCEIs

Ten (10) water samples were received on 16/07/05 for PCRs analysis by treshed 3520C/8082 traccordance with "Test Methode his Evelueting Bolid Waste, Physical/Chemical Methods", SW846, 1" ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Cambration

Initial califoration was five prante for PCd-1016 and PCd-1030, at RSDs were within 20%. All continue califorations were analyzed at 12 hour interval and accesses were within \$5.119%.

4. Method Blank

Method blank was free of contemination of the reporting level.

4. Surrougate Recovery

Recoveries were within DC full.

5. Lab Control SampleA ab Control Sample Duplicate

Affingcovernos were urdnin CIC lengts.

6. Metris Spike/Matris Spike Duplicate

Sample 1093-10 was solked. All recoveries were within DG limit

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All orders were med.



Electric Table Tool B., Mr. Project in A. STE 1. Page Be work in 15000 comple. (6. De 51-5) Les Swell V. (65. V.) Les Trie in STERRA, we strive to STERRA, we strive to STERRA,	more formered 1/107/25 more formered 1/107/25
milita, ter saciozali	Instrument to 1 SETTING

ERRANTILE :	HESULTS (ma/L)	TL (cg/) V	(0) (de/ii)
108-1056 eds 1221 208-1232 158-1242 168-1242	(ME) 75s 180 180 SEC NO (ME) 15c (SEC) 180 (ME) 140	-94 -94 -99 -99 -99	25 25 25 25 25 21 25 21 25 21
PER CHE HER CHES CHRESTALL PARABETTES	topy law	90 11917	251.75
TERREPORCE - N-STITUS	1735 53 156,7 DE	96 130 39 110	

est: Report in time (i.e., s.) and an player of protected to second assert (i.e., s.) To relative to reported outcome (i.e., s.) in the control of time (i.e., s.).



SMINTHS/BLAD robe

Dismit , (STAN FED) TO, DEC. Fromer , WA, STEP T, CRO RE MATOR NO. 10.125 ENDER TO SECURE LES FILL TO SEC	Outs F	(tectal) colored color	MATTE
	A Desp. TO	10	FEEL.

	4 8942 TS	Tr.	FED L
PS-8861470	U(2g71, 2	1.08/1.0	04075.1
	1	-110	
90a-1016	7863180	25	.24 24
200 - 12 PT	(160) (200	45	361.34
153-1534	Carp > INF	.95	-25 -3-
PCE- 1262	(60) > 160)	55	264.20
	1803[#	,95	-24.20
F 25-12-0	1800 180	,95	-26 -25
100-1754	CMD a Les	0.0	-24 - Zu
FCD-1250			
DESIGNATE PREMIUM	A MECONIER'S	ME CHARL	
Therease Services	-111	-100	
THE THACH CHIEF HOTELERS	6540 160	30-19	
DESPONDED THE PERSON	(98) (80)	36:133	

appearing from: Let or | w lettered by their cubber / digits of methods by second cubber |) reclaims are reserved astorem
 Act and | 0 | feet



E4369/E76002

A SWEET TOTAL TEACH	PE 150,	2007/01/2015			
edject (mor) high	1, X152.86	THE Re	cs tree!	70/07/08	
1950 No. 1 (500)		HATE EXT	choten	16/13/US	14:500
Sample 10: 86-51-155		Sacr An	Dagg / in	9//15/23	13:012
ab Seep 10 x053-04		playeree	ARCTAR .	795	
at the businesses		847813		WHITE	
W. Brow. Ic. Chambe.		7 800000	9 =	\$1.00 m	
al 16. 861 : 4/13/224		Just reman	8 In -	500150	

	R65.1.75	- 10	HEIL.	
CADAMPTERN	(100/1-)	prod. (THEFT	
		0.00		
P.20 - 1978.	(B) (M)	95	2.1.56	
NCN-1221	(60) 150	-54	-701.26	
#IN-1202	AND A THE	, 00	.75 .25	
201 1262	A 1/16 Y 1/1/10	3%	-21 /2-	
POI-1046	CNDT (RE	-9'3	26 30	
(B-125)	(BNs :] HIG		.29	
(12) - (2)(t)	CHO Sent	95	.20 000	
STREET, ATT. OFFICE TERM	V stroperies	ge - Wit		
		- 01		
TETRACKLISTS IT STEEL	(751376	30-100		
SECULIA CONSTRUENCY.	7951195	30, 150		

0.5 (specing that the first office; finally or [bolates is severed colour 7.5 included the repaired follows . Our elds of the first of the colour of the colour colour of the colour



540520473082 ricke

Then the Tries reck BC, 180	Gaya Collected:	TD/09/15.
PROJECT : NOA TITE CTO ME	Luga Toy of such	10/07/02
sand as a sketti	Pate Larrected	16/11/55 force
VET 12 de 181 Après	battle Applycests	18/11/05: 25-25
Ah Suite 17: 4053-69	Dilucia, Refren	95
Lab File in satisfic	Mechani	the eff
E/V &Vd. 19 = 2F/007g	5 Mareture	114
Largo Day : Xatabaan	Instrument IF Y	octobs

	245M DC	20.	Mili
nativity (Electrical)	(Logita)	150427415	AMERICA
		4111414	0.000
PER - 10 vis	1400.0 (80)	, 94	14 24
rts-1021	CHRS ME	,6%	34 24
EFE-123.3	G140 (RE	, 844	36, 36
51B-12W2	(386) (187	,54	Se Sh
71CB-1246	Chart Mil	796	241 24
· C5-125 -	CDO 1 (SD)	, 961	.24 24
975-17.61	1389 7 5 4(2)	794	150 1 30
SURROYATE VARIANTEDES	TO ENGINEERS	10c E R11	
		101111	
SETHALILIBRO-RESTORE	1411163	30:110	
DECACH GROWINGS IT.	1.95 / 97	30 120	

^{61:} Paper time 1 and 1 LOT to 1 by regarded to these settings. Right of 1 reliably to prefer policies 1 according to Experted policies.
1 control of all the 1 control of the 1 control



341820C/60UP PER

L1 mod 17,000 TOLK ED. Sanch Mr. 1916 1 1916 1 1 Sanch Mr. 1915 1 1915 Samme Mr. 1955 66 Mr. 1916 1 1915 Mr. 1916 1 1915 Mr. 1916 1 1916		Petri Initernal Disa Petri pit Petri estrenco Petri estrenco Petri estrenco Transpetri Transpetri Petri estrenco	10/07/52 10/11/65 15/00 10/13/96 23/06 1 WAZER MA
		reason to the state of	20.000000
	75 50 To	n.	1600
- 14 1 MA T 25 -	(trg/L)	146/63	104/15
	(*):11=		
atto (cla	CHED MO.		126 128
PGB 1231	(1952.) (1992.)		(231-25
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CASE HARRATIVE

CLIENT: YETRA YECH EG, INC.

PROJECT: MFA, SITE 1, CTO 86

909: 05J059

METHOD 7479A DISSOLVED MERCURY BY COLD VAPOR

Ten (10) water samples were received an 15/07/05 for Dissolved Manaury analysis by Method 747/04 in accordance with Tost Methods for Euslingling Sand Waster, Physical/Chemical Methods: SW/848, 37 edulors.

1. Holding Time

Analysis met holding time criteria.

2 Merhod Blank

Method blank was free of consumnation at the reporting finit.

3. Lab Control Semple/Lab Control Semple Cupilicate

Lab control require were within OC limit

4. Seria Dirusion / Post-Analytical Spike

Sample J053-10 was analyzed for sarial dilution and post-analytical spike. All OC requirements were met.

Matrix Spike/Matrix Spike Ouplicate

Sample 1053-10 was spiked. MS recovery was within OC kind but was out of the limit is MSD.

6. Sanspla Analysis

Samples were spalyzed reconsing to the prescribed QC procedures. All criteria were treat with the attractionarisance exception.

Samples were initially analyzed at DF 20 due to matrix interference of high sab revet.

EGAM CEUT AS ASSESSES GALVINSA G

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COLUMBIA ANALYTICAL SERVICES, INC.

Emax Laboratories Incorporated Client:

Service Request No.:

K0504756

Moffett Project: Sample Matrix: Water

Date Received:

10/12/2005

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Twelve water samples were received for analysis at Columbia Analytical Services on 10/12/2005. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Dissolved Metals

Matrix Spike Recovery Exceptions:

The matrix spike recoveries of Beryllium (59%), Cobalt (59%), Copper (74%), Lead (70%), and Thallium (72%) for Batch QC sample were outside the project specified control limits of 75-125%. All the recoveries were within the CAS statistically derived limits for the reductive precipitation procedure. Based on the CAS statistical control limits, the recoveries observed are in the range expected for this procedure. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. No further corrective action was appropriate.

		10 15	
Approved by	 Date		

INORGANIC ANALYSIS DATA SHEET

Emax Laboratories, Incorporated Client:

Service Request: K0504756

Project No.: NA

Date Collected: 10/04/05 Date Received: 10/12/05

Project Name: Moffett WATER Matrix:

Units: µG/L Basis: NA

Sample Name: 86-S1-124

Lab Code: K0504756-001 DISS

	Analysis		Т		Date	Date			
Analyte	Method	MRL	MDL	Dil.	Extracted	Analyzed	Result	С	Q
Aluminum	6010B	50	40	1	10/26/05	11/2/05	40	_	
Antimony	200.8	2.000	0.200	2	10/22/05	11/2/05	0.376	В	
Arsenic	200.8	0.56	0.01	1	11/19/05	11/22/05	1.61		
Barium	200.8	2,00	0.24	2	10/22/05	11/2/05	107		
	200.8	0.0222	0.0007	1	11/19/05	11/22/05	0.0073	В	N
Beryllium	200.8	0.022	0.002	1	11/19/05	11/22/05	0.407		
Cadmium	200.8	0.022	0.03	1	11/19/05	11/22/05	0.44	П	
Chromium		0.022	0.002	1	11/19/05	11/22/05	7.690	Π	N
Cobalt	200.8	0.022	0.006	1	11/19/05	11/22/05	2.640	Π	N
Copper	200.8		0.009	1	11/19/05	11/22/05	0.131	Γ	N
Lead	200.8	0.022	1	1	11/19/05	11/22/05	16.3	T	
Nickel	200.8	0.22	0.02	2	10/26/05	11/22/05	1 0.3	U	
Selenium	7742	1.0	0.3		11/19/05	11/22/05	0.093	†	i
Silver	200.8	0.022	0.002	1	1		0.0403		l N
Thallium	200.8	0.0222	0.0006		11/19/05		1 13.7	·	 -
Vanadium	6010B	20.0	7.0	1	10/26/05		20.1		
Zinc	200.8	0.56	0.02	1	11/19/05	11/22/05	1 20.1	<u>'</u>	1

§ Solids: 0.0

INORGANIC ANALYSIS DATA SHEET

Emax Laboratories, Incorporated Client:

Service Request: K0504756

Project No.: NA

Date Collected: 10/04/05

Date Received: 10/12/05

Project Name: Moffett WATER Matrix:

Units: µG/L Basis: NA

Sample Name: 86-S1-125

Lab Code: K0504756-002 DISS

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	40	1	10/26/05	11/2/05	40		
Antimony	200.8	2.000	0.200	2	10/22/05	11/2/05	0.200	В	<u> </u>
Arsenic	200.8	1.11	0.02	2	11/19/05	11/22/05	4.47	_	<u> </u>
Barium	200.8	2.00	0.24	2	10/22/05	11/2/05	176		
Beryllium	200.8	0.0222	0.0007	1	11/19/05	11/22/05	0.0108	В	N
Cadmium	200.8	0.044	0.004	2	11/19/05	11/22/05	0.004	U	
Chromium	200.8	0.44	0.07	2	11/19/05	11/22/05	0.84	<u> </u>	
Cobalt	200.8	0.044	0.004	2	11/19/05	11/22/05	3.320	T	N
	200.8	0.222	0.011	2	11/19/05	11/22/05	0.100	В	N
Copper	200.8	0.044	0.018	2	11/19/05	11/22/05	0.022	В	N
Lead	200.8	0.44	0.04	2	11/19/05	11/22/05	6.46	T	T
Nickel	7742	1.0	0.3	2	10/26/05	11/22/05	0.3	U	
Selenium	200.8	0.044	0.004	2	11/19/05	11/22/05	0.004	U	T
Silver		0.044		1 2	11/19/05	11/22/05	0.0011	U	N
Thallium	200.8		7.0	1	10/26/05	11/2/05	12.1	В	T
Vanadium	6010B	20.0	0.04	2	11/19/05	11/22/05	0.64	В	T
Zinc	200.8	1.11	1 0.04	1 2	11,19,03	1 22,22,00		•	

9 Solids: 0.0

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INORGANIC ANALYSIS DATA SHEET

Client: Emax Laboratories, Incorporated

Service Request: K0504756

Date Collected: 10/06/05

Lab Code: K0504756-003 DISS

Date Received: 10/12/05

Units: µG/L Basis: NA

Project No.: NA

Project Name: Moffett
Matrix: WATER

Sample Name: 86-S1-131

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	40	1	10/26/05	11/2/05	40		
Antimony	200.8	1.000	0.100	1	10/22/05	11/2/05	0.244	В	
Arsenic	200.8	0.56	0.01	1	11/19/05	11/22/05	0.95		
Barium	200.8	1.00	0.12	1	10/22/05	11/2/05	576		
Beryllium	200.8	0.0222	0.0007	1	11/19/05	11/22/05	0.0042		N
Cadmium	200.8	0.022	0.002	1	11/19/05	11/22/05	0.002	-	<u> </u>
Chromium	200.8	0.22	0.03	1	11/19/05	11/22/05	0.56		_
Cobalt	200.8	0.022	0.002	1	11/19/05	11/22/05	1.730		N
Copper	200.8	0.111	0.006	1	11/19/05	11/22/05	0.031	÷	
Lead	200.8	0.022	0.009	1	11/19/05	11/22/05	0.009	-	N
Nickel	200.8	0.22	0.02	1	11/19/05	11/22/05	4.69	<u> </u>	
Selenium	7742	1.0	0.3	2	10/26/05	11/22/05	0.3	U	
Silver	200.8	0.022	0.002	1	11/19/05	11/22/05	0.002	<u>.</u>	<u> </u>
Thallium	200.8	0.0222	0.0006	1	11/19/05	11/22/05	0.0014	В	N
Vanadium	6010B	20.0	7.0	1	10/26/05	11/2/05	9.8	В	
Zinc	200.8	0.56	0.02	1	11/19/05	11/22/05	1.84	T	T

Solids: 0.0

-1-

INORGANIC ANALYSIS DATA SHEET

Client: Emax Laboratories, Incorporated

Service Request: K0504756

Project No.: NA

WATER

Date Collected: 10/06/05

Project Name: Moffett

Matrix:

Date Received: 10/12/05 Units: µG/L

Units: µG/L Basis: NA

Sample Name: 86-S1-132

Lab Code: K0504756-004 DISS

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	40	1.	10/26/05	11/2/05	40	U	<u> </u>
Antimony	200.8	1.000	0.100	1.	10/22/05	11/2/05	0.236		
Arsenic	200.8	0.56	0.01	1.	11/19/05	11/22/05	1.95		
	200.8	1.00	0.12	1	10/22/05	11/2/05	556	-	
Barium	200.8	0.0222	0.0007	1	11/19/05	11/22/05	0.0046	<u>. </u>	N
Beryllium	200.8	0.022	0.002	1	11/19/05	11/22/05	0.002	U	
Cadmium	200.8	0.22	0.03	1.	11/19/05	11/22/05	0.59	-	1
Chromium	200.8	0.022	0.002	1	11/19/05	11/22/05	2.990		N
Cobalt	200.8	0.111	0.006	1	11/19/05	11/22/05	0.060	B	N
Copper		0.022	0.009	1	11/19/05	11/22/05	0.009	U	N
Lead	200.8	0.022	0.02	1	11/19/05	11/22/05	4.80	Т	
Nickel		1.0	0.3	2	10/26/05	11/22/05	0.3	U	1
Selenium	7742	0.022	0.002	1	11/19/05	11/22/05	0.002	U	T
Silver	200.8	0.022	0.0006	1	11/19/05	11/22/05	0.0011	B	N
Thallium	200.8		7.0	1	10/26/05		10.3	В	
Vanadium	6010B	20.0	0.02	1	11/19/05		2.25	T	T
Zinc	200.8	0.56	1 0.02	1 1	1 22, 23, 03	1			

% Solids: 0.0

-1-

INORGANIC ANALYSIS DATA SHEET

Emax Laboratories, Incorporated Client:

Service Request: K0504756

Project No.: NA

Date Collected: 10/06/05

Date Received: 10/12/05

Project Name: Moffett

Units: µG/L

WATER Matrix:

Basis: NA

Sample Name: 86-S1-133

Lab Code: K0504756-005 DISS

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	40	1	10/26/05	11/2/05	40		
	200.8	2,000	0.200	2	10/22/05	11/2/05	0.200	U	
Antimony	200.8	1.05	0.02	2	11/19/05	11/22/05	3.86		İ
Arsenic	200.8	2.00	0.24	2	10/22/05	11/2/05	150		
Barium	200.8	0.0421	0.0013	2	11/19/05	11/22/05	0.0072	В	N
Beryllium		0.042	0.004	1 2	11/19/05	11/22/05	0.004	U	
Cadmium	200.8	0.42	0.06	2	11/19/05	11/22/05	0.61		
Chromium	200.8	0.042	0.004	2	11/19/05	11/22/05	2.270	Г	N
Cobalt	200.8	1	0.001	2	11/19/05	11/22/05	0.099	В	N
Copper	200.8	0.211	0.017	2	11/19/05	11/22/05	0.017	U	N
Lead	200.8	0.042	1	2	11/19/05	11/22/05	5.45	İΤ	Ť-
Nickel	200.8	0.42	0.04		10/26/05	11/22/05	0.3	<u>. </u>	İ
Selenium	7742	1.0	0.3	2	1	11/22/05	0.004		†
Silver	200.8	0.042	0.004	2	11/19/05		0.0011		l N
Thallium	200.8	0.0421	0.0011	2	11/19/05		7.3	<u> </u>	T .
Vanadium	6010B	20.0	7.0	1	10/26/05		31.3	<u>-</u>	+
Zinc	200.8	1.05	0.04	2	11/19/05	11/22/05	31.3	1	<u> </u>

^{*} solids: U.U

-1-

INORGANIC ANALYSIS DATA SHEET

Client: Emax Laboratories, Incorporated

Service Request: K0504756

Project No.: NA

Date Collected: 10/06/05

Project Name: Moffett

Date Received: 10/12/05

Matrix: WATER

Units: µG/L Basis: NA

Sample Name: 86-S1-134

Lab Code: K0504756-006 DISS

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	40	1	10/26/05	11/2/05	40		
Antimony	200.8	2.000	0.200	2	10/22/05	11/2/05	0.200	U	
Arsenic	200.8	1.11	0.02	2	11/19/05	11/22/05	4.33		
	200.8	2.00	0.24	2	10/22/05	11/2/05	150		<u> </u>
Barium	200.8	0.0444	0.0013	2	11/19/05	11/22/05	0.0079	В	N
Beryllium	200.8	0.044	0.004	1 2	11/19/05	11/22/05	0.004	ט	
Cadmium	200.8	0.44	0.07	2	11/19/05	11/22/05	0.50		
Chromium		0.044	0.004	2	11/19/05	11/22/05	2.280	Π	N
Cobalt	200.8	0.044	0.001	1 2	11/19/05	11/22/05	0.093	В	N
Copper	200.8	1	0.011	2	11/19/05	11/22/05	0.026	В	N
Lead	200.8	0.044	1	2	11/19/05		1 5.46	Ť	<u> </u>
Nickel	200.8	0.44	0.04		10/26/05	1	1 0.3	Ìυ	İ
Selenium	7742	1.0	0.3	2			0.004	-	†
Silver	200.8	0.044	0.004	2	11/19/05		0.0011	-	l N
Thallium	200.8	0.0444	0.0011		11/19/05		10.6		
Vanadium	6010B	20.0	7.0	1	10/26/05		20.6	-	╁
Zinc	200.8	1.11	0.04	2	11/19/05	11/22/05	1 20.6		

Solids: 0.0

-1-

INORGANIC ANALYSIS DATA SHEET

Client: Emax Laboratories, Incorporated

Service Request: K0504756

Project No.: NA

Date Collected: 10/06/05

Project No.: III

Date Received: 10/12/05

Project Name: Moffett

Units: µG/L

Matrix: WATER

Basis: NA

Sample Name: 86-S1-135

Lab Code: K0504756-007 DISS

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	40	1	10/26/05	11/2/05	45.2		
Antimony	200.8	1.000	0.100	1	10/22/05	11/2/05	0.306	В	
Arsenic	200.8	2.22	0.04	2	11/19/05	11/22/05	7.25		
Barium	200.8	1.00	0.12	1	10/22/05	11/2/05	398		
Beryllium	200.8	0.0444	0.0013	1	11/19/05	11/22/05	0.0242	-	N
Cadmium	200.8	0.089	0.009	2	11/19/05	11/22/05	0.009	U	
Chromium	200.8	0.89	0.13	2	11/19/05	11/22/05	2.51	<u> </u>	
	200.8	0.089	0.009	2	11/19/05	11/22/05	2.870		N
Cobalt	200.8	0.444	0.022	2	11/19/05	11/22/05	0.140	В	N
Copper	200.8	0.089	0.036	2	11/19/05	11/22/05	0.072	В	N
Lead	200.8	0.89	0.09	2	11/19/05	11/22/05	9.48		T
Nickel	7742	1.0	0.3	2	10/26/05	11/22/05	0.3	U	
Selenium	200.8	0.089	0.009	2	11/19/05	11/22/05	0.009	U	T
Silver		0.0899	0.0022	-	11/19/05		0.0022	U	N
Thallium	200.8	1	7.0	1	10/26/05		16.6	В	T
Vanadium	6010B	20.0			11/19/05		0.82	Ìв	Ť
Zinc	200.8	2.22	0.09	2	11/19/05	1 11/22/05	1 0.02	<u></u>	<u> </u>

& Solids: 0.0

-1-INORGANIC ANALYSIS DATA SHEET

Emax Laboratories, Incorporated Client:

Service Request: K0504756

Project No.: NA

Date Collected: 10/06/05

Date Received: 10/12/05

Project Name: Moffett

Units: µG/L

Matrix: WATER

Basis: NA

Sample Name: 86-S1-136

Lab Code: K0504756-008 DISS

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Ď
Aluminum	6010B	50	40	1	10/26/05	11/2/05	40		
	200.8	2.000	0.200	2	10/22/05	11/2/05	0.200		
Antimony	200.8	2,22	0.04	2	11/19/05	11/22/05	7.72		
Arsenic	200.8	2,00	0.24	2	10/22/05	11/2/05	458	<u> </u>	
Barium	200.8	0.0889	0.0027	2	11/19/05	11/22/05	0.0294	В	N
Beryllium	200.8	0.0003	0.009	2	11/19/05	11/22/05	0.009	U	
Cadmium		0.89	0.13	2	11/19/05	11/22/05	0.92	Γ	
Chromium	200.8	0.089	0.009	2	11/19/05	11/22/05	7.280		N
Cobalt	200.8	0.444	0.022	2	11/19/05	11/22/05	0.125	В	N
Copper	200.8	1	0.022	2	11/19/05	11/22/05	0.041	В	N
Lead	200.8	0.089		2	11/19/05	11/22/05	12.5	İΤ	
Nickel	200.8	0.89	0.09		10/26/05	11/22/05	0.3	Ìΰ	†
Selenium	7742	1.0	0.3	2		11/22/05	0.009		†
Silver	200.8	0.089	0.009	2	11/19/05	11/22/05	0.0022	<u> </u>	İn
Thallium	200.8	0.0889	0.0022	2	11/19/05		15.1		
Vanadium	6010B	20.0	7.0	1	10/26/05	11/2/05	1		+
Zinc	200.8	2.22	0.09	2	11/19/05	11/22/05	0.74	1 5	1

t Solids: 0.0

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INORGANIC ANALYSIS DATA SHEET

Client: Emax Laboratories, Incorporated

Service Request: K0504756

Project No.: NA

Date Collected: 10/06/05

Project Name: Moffett

Date Received: 10/12/05

Project Name: Moffett Matrix: WATER

Units: µG/L Basis: NA

Sample Name: 86-S1-126

Lab Code: K0504756-009 DISS

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	40	1	10/26/05	11/2/05	40		
Antimony	200.8	2.000	0.200	2	10/22/05	11/2/05	0.200	υ	
Arsenic	200.8	1.18	0.02	2	11/19/05	11/22/05	2.97	_	<u> </u>
Barium	200.8	2.00	0.24	2	10/22/05	11/2/05	99.9		
Beryllium	200.8	0.0235	0.0007	1	11/19/05	11/22/05	0.0065	В	N
Cadmium	200.8	0.047	0.005	2	11/19/05	11/22/05	0.473		1
	200.8	0.47	0.07	2	11/19/05	11/22/05	0.35	В	
Chromium	200.8	0.047	0.005	2	11/19/05	11/22/05	9.690		N
Cobalt	200.8	0.235	0.012	2	11/19/05	11/22/05	0.494		N
Copper	200.8	0.047	0.019	2	11/19/05	11/22/05	0.036	В	И
Lead	200.8	0.47	0.05	2	11/19/05	11/22/05	14.5	T	T
Nickel		1.0	0.3	1 2	10/26/05	11/22/05	0.3	U	T
Selenium	7742	0.047	0.005	1 2	11/19/05	11/22/05	0.005	U	T
Silver	200.8		0.003		11/19/05		0.0517	T	N
Thallium	200.8	0.0471	1	1	10/26/05		11.6	В	T
Vanadium	6010B	20.0	7.0				17.4		
Zinc	200.8	1.18	0.05	2	11/19/05	11/22/05		-	,

• Solids: 0.0

-1-

INORGANIC ANALYSIS DATA SHEET

Emax Laboratories, Incorporated Client:

Service Request: K0504756

Project No.: NA

Date Collected: 10/06/05

Date Received: 10/12/05

Project Name: Moffett

Units: µG/L

Matrix: WATER Basis:

Sample Name: 86-S1-128

Lab Code: K0504756-010 DISS

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	40	1	10/26/05	11/2/05	40		
Antimony	200.8	2.000	0.200	2	10/22/05	11/2/05	0.200	U	
Arsenic	200.8	1.25	0.03	2	11/19/05	11/22/05	5.28		
	200.8	2.00	0.24	2	10/22/05	11/2/05	159		
Barium	200.8	0.0250	0.0008	1	11/19/05	11/22/05	0.0102	В	N
Beryllium		0.050	0.005	2	11/19/05	11/22/05	0.005	U	Г
Cadmium	200.8	0.50	0.08	2	11/19/05	11/22/05	0.44	В	
Chromium	200.8		0.005	2	11/19/05	11/22/05	8.340	Т	N
Cobalt	200.8	0.050		1 2	11/19/05	11/22/05	0.075	В	N
Copper	200.8	0.250	0.013	-	11/19/05	1	0.020	Ìυ	IN
Lead	200.8	0.050	0.020	2	1		10.3	·	†
Nickel	200.8	0.50	0.05	2	11/19/05		0.3		†
Selenium	7742	1.0	0.3	2	10/26/05		0.005		+
Silver	200.8	0.050	0.005	2	11/19/05	-	1		1 27
Thallium	200.8	0.0500	0.0013	2	11/19/05		0.0031		N
Vanadium	6010B	20.0	7.0	1	10/26/05		13.0	<u> </u>	
Zinc	200.8	1.25	0.05	2	11/19/05	11/22/05	1.09	B	

Solids: 0.0

INORGANIC ANALYSIS DATA SHEET

Emax Laboratories, Incorporated Client:

Service Request: K0504756

Project No.: NA

Date Collected: 10/06/05

Date Received: 10/12/05

Project Name: Moffett WATER Matrix:

Units: uG/L Basis: NA

Sample Name: 86-S1-129

Lab Code: K0504756-011 DISS

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	40	1	10/26/05	11/2/05	40		
Antimony	200.8	2.000	0.200	2	10/22/05	11/2/05	0.200	-	1
Arsenic	200.8	1.11	0.02	2	11/19/05	11/22/05	2.53		<u> </u>
Barium	200.8	2,00	0.24	2	10/22/05	11/2/05	72.0		
Bervllium	200.8	0.0222	0.0007	1	11/19/05	11/22/05	0.0054	В	N
Cadmium	200.8	0.044	0.004	2	11/19/05	11/22/05	0.742	_	
Chromium	200.8	0.44	0.07	2	11/19/05	11/22/05	0.36	В	
	200.8	0.044	0.004	2	11/19/05	11/22/05	5.250		N
Cobalt	200.8	0.222	0.011	1 2	11/19/05	11/22/05	0.205	В	N
Copper	200.8	0.044	0.018	2	11/19/05	11/22/05	0.018	U	N
Lead	200.8	0.44	0.04	2	11/19/05	11/22/05	10.1	T	T
Nickel		1.0	0.3	2	10/26/05	11/22/05	0.3	U	T
Selenium	7742	0.044	0.004	2	11/19/05	1 11/22/05	0.004	U	T
Silver	200.8	0.0444	0.001	1 2	11/19/05	11/22/05	0.0380	В	N
Thallium	200.8		7.0	1	10/26/05		14.7	В	T
Vanadium	6010B	20.0		2	11/19/05		1 44.3	Ť	T
Zinc	200.8	1.11	0.04	1 2	11/19/03	1 22/22/00		<u></u>	

Solids: 0.0

1

INORGANIC ANALYSIS DATA SHEET

Client: Emax Laboratories, Incorporated

Service Request: K0504756

Project No.: NA

Date Collected: 10/06/05 Date Received: 10/12/05

Project Name: Moffett
Matrix: WATER

Units: µG/L Basis: NA

Sample Name: 86-S1-130

Lab Code: K0504756-012 DISS

Analyte	Analysis Method	MRL	WDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
	6010B	50	40	1	10/26/05	11/2/05	50.3		
Aluminum	200.8	1.000	0.100	1	10/22/05	11/2/05	0.484	В	l
Antimony		1.11	0.02	2	11/19/05	11/22/05	1.93		ĺ
Arsenic	200.8	1.00	0.12	1	10/22/05	11/2/05	1260		
Barium	200.8	0.0222	0.0007	1	11/19/05	11/22/05	0.0169	В	N
Beryllium	200.8		0.004	2	11/19/05	11/22/05	0.004	U	
Cadmium	200.8	0.044	1	2	11/19/05	11/22/05	7.41	Γ	
Chromium	200.8	0.44	0.07	2	11/19/05	11/22/05	0.360	Т	N
Cobalt	200.8	0.044	0.004	2	11/19/05	11/22/05	0.135	В	N
Copper	200.8	0.222	0.011		11/19/05	11/22/05	0.019	В	N
Lead	200.8	0.044	0.018	2	11/19/05	11/22/05	61.6	÷	İΤ
Nickel	200.8	0.44	0.04	2		11/22/05	0.3		†
Selenium	7742	1.0	0.3	2	10/26/05		0.004		†
Silver	200.8	0.044	0.004	2	11/19/05	11/22/05	0.0011		TN
Thallium	200.8	0.0444	0.0011	2	11/19/05		1 14.6		
Vanadium	6010B	20.0	7.0	1	10/26/05			-	+
Zinc	200.8	1.11	0.04	2	11/19/05	11/22/05	20.2		

: Solids: 0.0

DISSOLVED METALS -1INORGANIC ANALYSIS DATA SHEET

Client: Emax Laboratories, Incorporatec

Service Request: K0504756

Date Collected:

Project No.: NA

Jate Collected.

Project Name: Moffett

Date Received:

Matrix:

WATER

Units: µG/L Basis: NA

Sample Name: Method Blank

Lab Code: K0504756-MB

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
	6010B	50	40	1	10/26/05	11/2/05	40		1
Aluminum		1,000	0.100	1	10/22/05	11/2/05	0.100	U	<u> </u>
Antimony	200.8	0.50	0.01	1	11/19/05	11/22/05	0.01	U	
Arsenic	200.8	1.00	0.12	1	10/22/05	11/2/05	1.57		
Barium	200.8	0.0200	0.0006	1	11/19/05	11/22/05	0.0006	U	N
Beryllium	200.8		0.000	1	11/19/05	11/22/05	0.002	U	
Cadmium	200.8	0.020	0.002	1	11/19/05	11/22/05	0.03	U	
Chromium	200.8	0.20		1	11/19/05	11/22/05	0.002	U	N
Cobalt	200.8	0.020	0.002	1 1	11/19/05	11/22/05	0.005	U	N
Copper	200.8	0.100	0.005		11/19/05	11/22/05	0.008	U	N
Lead	200.8	0.020	0.008	1	11/19/05	11/22/05	0.02	U	T
Nickel	200.8	0.20	0.02	1	10/26/05		0.3	Īυ	Ť
Selenium	7742	1.0	0.3	2			0.002	Ìΰ	Ť
Silver	200.8	0.020	0.002	1	11/19/05		0.0005		
Thallium	200.8	0.0200	0.0005		11/19/05		7.0		
Vanadium	6010B	20.0	7.0	1	10/26/05		0.02	<u> </u>	
Zinc	200.8	0.50	0.02	1	11/19/05	11/22/05	1 0.02	10	<u> </u>

Solids: 0.0

Comments:

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Air Field, Site 1, CTO 86

Collection Date: October 6, 2005

LDC Report Date: November 17, 2005

Matrix: Water

Parameters: Volatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05J053

Sample Identification

86-S1-139

86-S1-131

86-S1-132**

00-51-102

86-S1-133

86-S1-134**

86-S1-135

86-S1-136

86-S1-138

86-S1-126

86-S1-128

86-S1-129

86-S1-130

86-S1-128MS

86-S1-128MSD

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 14 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required

I. Technical Holding Times

All technical holding time requirements were met.

All samples were received in good condition with the following exceptions:

Sample	Compound	Finding	Criteria	Flag	A or P
86-S1-132** 86-S1-133 86-S1-126 86-S1-128	All TCL compounds	Air bubbles were apparent in the sample containers,	There should be no air bubbles in the sample containers.	J (all detects) UJ (all non-detects)	A

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (\mathbf{r}^2) were greater than or equal to 0.990.

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all volatile target compounds were within method and validation criteria with the following exceptions:

Deta	Compound	RRF (Limits)	Associated Samples	Flag	A or F
9/21/05	Acetone	0.043 (≥0.05)	86-S1-136 86-S1-138	J (all detects) UJ (all non-detects)	Α
	2-Butanone	0.040 (≥0.05)	86-S1-128 86-S1-128 86-S1-129 86-S1-130 86-S1-128MS 86-S1-128MSD MBLK1W	J (all detects) UJ (all non-detects)	

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%D	Associated Samples	Fleg	A or P
10/19/05	Chloroethane Trichlorofluoromethane Carbon disuffide 2,2-Dichloropropane n-Butylbenzene Hexachlorobutadione	27.1 41.9 26.3 42.6 25.6 28.0	86-S1-139 86-S1-131 86-S1-132** 86-S1-133 86-S1-134** 86-S1-135 MBLK2W	J (all detects) UJ (all non-detects)	A

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associeted Semples	Flag	A or P
10/16/05	Acetone	0.035 (≥0.05)	86-S1-136 86-S1-138	J (all detects) UJ (all non-detects)	А
	2-Butanone	0.044 (≥0.05)	86-S1-126	J (all detects)	
			86-S1-128 86-S1-129	UJ (all non-detects)	
			86-S1-130		
			86-S1-128MS 86-S1-128MSD		
			MBLK1W		

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI, Field Duplicates

Samples 86-S1-131 and 86-S1-132** and samples 86-S1-133 and 86-S1-134** were identified as field duplicates. No volatiles were detected in any of the samples.

XVII. Field Blanks

Samples 86-S1-139 and 86-S1-138 were identified as trip blanks. No volatile contaminants were found in these blanks.

Moffett Air Field, Site 1, CTO 86 Volatiles - Data Qualification Summary - SDG 05J053

SDG	Sample	Compound	Flag	A or P	Reason
04J053	86-S1-132** 86-S1-133 86-S1-126 86-S1-128	All TCL compounds	J (all detects) UJ (all non-detects)	А	Sample condition
04J053	86-S1-136 86-S1-138 86-S1-126 86-S1-128 86-S1-129 86-S1-130	Acetone 2-Butanone	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	А	Initial calibration (RRF)
04J053	86-S1-139 86-S1-131 86-S1-132** 86-S1-133 86-S1-134** 86-S1-135	Chloroethane Trichloroffucromethane Carbon disulfide 2,2-Dichloropropane n-Butylbenzene Hexachlorobutadiene	J (all detects) UJ (all non-detects)	А	Continuing calibration (%D)
04J053	86-S1-136 86-S1-138 86-S1-126 86-S1-128 86-S1-129 86-S1-130	Acetone 2-Butanone	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	А	Continuing calibration (RRF)

Moffett Air Field, Site 1, CTO 86 Volatiles - Laboratory Blank Data Qualification Summary - SDG 05J053

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Air Field, Site 1, CTO 86

Collection Date: October 6, 2005

LDC Report Date: November 17, 2005

Matrix: Water

Parameters: Semivolatiles

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05J053

Sample Identification

86-S1-131

86-S1-132**

86-S1-133

86-S1-134**

86-S1-135

86-S1-136

86-S1-126

86-S1-128

86-S1-129

86-S1-130

86-S1-130RE

86-S1-128MS

86-S1-128MSD

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 13 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (\mathbf{r}^2) were greater than or equal to 0.990.

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all semivolatile target compounds were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
10 14 05	Bis(2-chloroisopropy)ether 2,4-Dintrophenol 4-Nitrophenol Benzo(k)fluoranthene	34.9 33.8 25.5 33.6	86-S1-131 86-S1-132** 86-S1-133* 86-S1-133* 86-S1-135* 86-S1-126 86-S1-126 86-S1-126 86-S1-128 86-S1-128 86-S1-128MS 86-S1-128MS	J (all detects) UJ (all non-detects)	A
10 17 05	Bis(2-chloroisopropyl)ether Benzo(k)fluoranthene	33.1 27.5	86-S1-130RE	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits with the following exceptions:

Sample	Internel Standerds	Aree (Limits)	Compound	Flag	A or P
86-S1-130RE	Perylene-d12	145405 (182354-729416)	Di-n-octylphthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(e)pyrene Indeno(1,2,3-cd)pyrene Dibenz(e,h)anthracene Benzo(g,h,i)perylene	J (all detects) UJ (all non-detects)	A

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by level III criteria.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples 86-S1-131 and 86-S1-132** and samples 86-S1-133 and 86-S1-134** were identified as field duplicates. No semivolatiles were detected in any of the samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, Site 1, CTO 86 Semivolatiles - Data Qualification Summary - SDG 05J053

SDG	Sample	Compound	Flag	A or P	Reason
04J053	86-S1-131 86-S1-132** 86-S1-133** 86-S1-134** 86-S1-135 86-S1-135 86-S1-126 86-S1-128 86-S1-128	Bis(2-chloroisopropyliether 2,4-Dnitrophenol 4-Mtrophenol Benzoik/fluoranthene	J (all detects) UJ (all non-detects)	А	Continuing calibration (%D)
04J053	86-S1-130RE	Bis(2-chloroisopropyl)ether Benzo(k)fluoranthene	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	А	Continuing calibration (%D)
04J053	86-S1-130RE	Di-n-octylphthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a),1,3-mitracene Benzo(g,h,i)perylene	J (all detects) UJ (all non-detects)	А	internal standards (area)

Moffett Air Field, Site 1, CTO 86 Semivolatiles - Laboratory Blank Data Qualification Summary - SDG 05J053

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: October 6, 2005

LDC Report Date: November 17, 2005

Matrix: Water

Parameters: Chlorinated Pesticides

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05J053

Sample Identification

86-S1-131

86-S1-132**

86-S1-133

86-S1-134**

86-S1-135

86-S1-136

86-S1-126

86-S1-128

86-S1-129

86-S1-130

86-S1-128MS

86-S1-128MSD

^{**}Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 12 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8081A for Chlorinated Pesticides.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance was acceptable unless noted otherwise under initial calibration and continuing calibration sections.

III Initial Calibration

Initial calibration of single and multicomponent compounds was performed for the primary (quantitation) column and confirmation column as required by this method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

The individual 4,4'-DDT and Endrin breakdowns were less than 15.0%.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No chlorinated pesticide contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples 86-S1-131 and 86-S1-132** and samples 86-S1-133 and 86-S1-134** were identified as field duplicates. No chlorinated pesticides were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86 Chlorinated Pesticides - Data Qualification Summary - SDG 05J053

No Sample Data Qualified in this SDG

Moffett Airfield, Site 1, CTO 86 Chlorinated Pesticides - Laboratory Blank Data Qualification Summary - SDG 05J053

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Airfield, Site 1, CTO 86

Collection Date: October 6, 2005

LDC Report Date: November 17, 2005

Matrix: Water

Parameters: Polychlorinated Biphenyls

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05J053

Sample Identification

86-S1-131

86-S1-132**

86-S1-133

86-S1-134**

86-S1-135

86-S1-136

86-S1-126

86-S1-128

86-S1-129

86-S1-130

86-S1-128MS

86-S1-128MSD

^{**}Indicates sample underwent EPA Level IV review.

Introduction

This data review covers 12 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XIV.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/ECD Instrument Performance Check

Instrument performance data were not provided and therefore not reviewed.

III. Initial Calibration

Initial calibration of multicomponent compounds was performed for the primary (quantitation) column as required by the method.

The percent relative standard deviations (%RSD) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) of calibration factors in continuing standard mixtures were within the 15.0% QC limits.

Initial calibration verification (ICV) percent differences (%D) were less than or equal to 20.0% for all compounds.

Retention time windows were evaluated and considered technically acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples on which a Level III review was performed.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Pesticide Cleanup Checks

a. Florisil Cartridge Check

Florisil cleanup was not required and therefore not performed in this SDG.

b. GPC Calibration

GPC cleanup was not required and therefore not performed in this SDG.

XI. Target Compound Identification

All target compound identifications were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Compound Quantitation and Reported CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XIII Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIV. Field Duplicates

Samples 86-S1-131 and 86-S1-132** and samples 86-S1-133 and 86-S1-134** were identified as field duplicates. No polychlorinated biphenyls were detected in any of the samples.

XV. Field Blanks

No field blanks were identified in this SDG.

Moffett Airfield, Site 1, CTO 86 Polychlorinated Biphenyls - Data Qualification Summary - SDG 05J053

No Sample Data Qualified in this SDG

Moffett Airfield, Site 1, CTO 86
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG
05J053

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Air Field, Site 1, CTO 86

Collection Date: November 6, 2005

LDC Report Date: November 14, 2005

Matrix: Water

Parameters: Dissolved Mercury

Validation Level: EPA Level III & IV

Laboratory: EMAX Laboratories, Inc.

Sample Delivery Group (SDG): 05J053

Sample Identification

86-S1-131

86-S1-132**

86-S1-133

86-S1-134**

86-S1-135

86-S1-136

86-S1-126

86-S1-128

86-S1-129

86-S1-130

86-S1-128MS

86-S1-128MSD

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 12 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7470A for Dissolved Mercury.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP was not utilized in this SDG.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	RPD (Limits)	Flag	A or P
86-S1-128MS/MSD (All samples in SDG 05J053)	Dissolved mercury	-	67 (75-125)	-	J (all detects) UJ (all non-detects)	А

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XI. Sample Result Verification

All sample result verifications were acceptable for samples on which a NFESC Level IV review was performed. Raw data were not evaluated for samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIII. Field Duplicates

Samples 86-S1-131 and 86-S1-132** and samples 86-S1-133 and 86-S1-134** were identified as field duplicates. No metals were detected in any of the samples.

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, Site 1, CTO 86 Dissolved Mercury - Data Qualification Summary - SDG 05J053

SDG	Sample	Analyte	Flag	A or P	Reason
05J053	86-S1-131 86-S1-132** 86-S1-133 86-S1-134** 86-S1-135 86-S1-136 86-S1-126 86-S1-128 86-S1-128 86-S1-129	Dissolved mercury	J (all detects) UJ (all non-detects)	А	Matrix spike/Matrix spike duplicates (%R)

Moffett Air Field, Site 1, CTO 86 Dissolved Mercury - Laboratory Blank Data Qualification Summary - SDG 05J053

No Sample Data Qualified in this SDG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Moffett Air Field, Site 1, CTO 86

Collection Date: October 4 through October 6, 2005

LDC Report Date: December 5, 2005

Matrix: Water

Parameters: Dissolved Metals

Validation Level: EPA Level III & IV

Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K0504756

Sample Identification

86-S1-124

86-S1-125

86-S1-131

86-S1-132**

86-S1-133

86-S1-134**

86-S1-135

86-S1-136

86-S1-126

86-S1-128

86-S1-129

86-S1-130

86-S1-124MS

86-S1-124DUP

00-31-12400

86-S1-128MS

86-S1-128DUP

^{**}Indicates sample underwent EPA Level IV review

Introduction

This data review covers 16 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Methods 6010B and 7742, and EPA Method 200.8 for Dissolved Metals. The metals analyzed were Aluminum. Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a EPA Level IV review. A EPA Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met with the following exceptions:

Date	Lab. Reference/ID	Analyte	%R (Limits)	Associated Samples	Flag	A or P
10/22/05	CCV2	Beryllium	113 (90-110)	PB	J (all detects)	Р

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Maximum Concentration	Associated Samples
PB (prep blank)	Barium	1.57 ug/l.	All samples in SDG K0504756
ICB/CCB	Antimony Arsenic Beryllium Selenium Thallium	0.029 ug/L 0.011 ug/L 0.0221 ug/L 0.3 ug/L 0.08 ug/L	All samples in SDG K0504756

Data qualification by the initial, continuing and preparation blanks (ICB/CCB/PBs) was based on the maximum contaminant concentration in the ICB/CCB/PBs in the analysis of each analyte. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration
86-S1-124	Antimony	0 376 ug.'.	0.376U ug/L
	Bery ium (0.11x)	0.0073 ug L	0.0073U ug/L
	Thallium (0.11x)	0.0403 ug/L	0.0403U ug/L

Sample	Analyte	Reported Concentration	Modified Final Concentration
86-\$1-125	Antimony	0.200 ug/L	0,200U ug/L
	Beryllium (0.11x)	0.0108 ug/L	0,0108U ug/L
86-S1-131	Antimory	0.244 ug/L	0.244U ug/L
	Beryllium (0.11x)	0.0042 ug/L	0.0042U ug/L
	Thailium (0.11x)	0.0014 ug/L	0.0014U ug/L
86-S1-132**	Antimony	0 236 ug/L	0.236U ug/L
	Beryllium (0.11x)	0.0046 ug/L	0.0046U ug/L
	Thallium (0.11x)	0.0011 ug/L	0.0011U ug/L
86-S1-133	Berylhum (0.21x)	0 0072 ug/L	0.0072U ug/L
86-S1-134**	Beryllium (0.22x)	0.0079 ug/L	0.0079U ug/L
86-S1-135	Antimotry	0.306 ugʻi.	0.306U ug/L
	Beryllium (0.22x)	0.0242 ug/l.	0.0242U ug/L
86-S1-136	Beryllium (0.44x)	0.0294 ug/L	0.0294U ug/L
86-S1-126	Beryllium (0.12x)	0.0065 ug/L	0.0065U ug/L
	Thallium (0.24x)	0.0517 ug/L	0.0617U ug/L
86-S1-128	Beryllium (0.125x)	0.0102 ug/L	0.0102U ug/L
	Thallium (0.25x)	0.0031 ug/L	0.0031U ug/L
86-S1-129	Beryllium (0.11x)	0.0054 ug/L	0.0054U ug/L
	Thallium (0.22x)	0.0380 ug/L	0.0380U ug/L
86-S1-130	Antimony	0.484 ug/L	0.484U ug/L,

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Internal Standards

All internal standard percent recoveries (%R) were within QC limits with the following exceptions:

Date	Sample	Internal Standard	%R (Limits)	Analyte	Flag	A or F
11/2/05	86-S1-132**	Indium ¹⁷⁵ Lutefium ¹⁷⁵	170.7 (60-125) 149.5 (60-125)	Antimony Barium	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	A
11/2/05	86-S1-134**	Indium ¹¹⁵ Lutetium ⁵⁷⁵	132.6 (60-125) 149.1 (60-125)	Antimony Barium	J (all detects) UJ (all non-detects) J (all detects) UJ (all non-detects)	А
11/22/05	86-\$1-132**	Scandium ⁴⁵ Nickel ⁶¹ Indium ¹⁷⁴ Lutetium ¹⁶²	136.1 (60-125) 192.4 (60-125) 157.6 (60-125) 125.8 (60-125)	Arsenic Cadmium Chromium Cobalt Copper Lead Nickel Silver Thallium Zinc	J (all detects) UJ (all non-detects)	А
11/22/05	86-S1-134**	Nickef*Indium***	188 7 (60-125) 150 8 (60-125)	Nickel Arsense Cadmium Chromium Cobalt Copper Silver Zinc	J (all detects) UJ (all non-detects)	A
1/22/05	86-S1-132**	Scandium ⁴⁵	145.1 (60-125)	Bery lum	J (all detects) UJ (all non-detecte)	A
,22,'05	86-S1-134**	Scandium	16/ 3 (60-125)	Beryllium	J (all detects)	A

IX. Furnace Atomic Absorption QC

All graphite furnace atomic absorption QC were within validation criteria for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

X. ICP Serial Dilution

ICP serial dilution analysis was performed by the laboratory. The analysis criteria were met.

XI. Sample Result Verification

All sample result verifications were acceptable for samples on which a EPA Level IV review was performed. Raw data were not evaluated for the samples reviewed by Level III criteria.

XII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIII. Field Duplicates

Samples 86-S1-131 and 86-S1-132** and samples 86-S1-133 and 86-S1-134** were identified as field duplicates. No metals were detected in any of the samples with the following exceptions:

	Concentration	on (mg/Kg)	
Analyte	86-S1-131	86-S1-132**	RPD
Antimony	0.244	0.236	3
Arsenic	0.95	1.95	69
Barium	578	556	4
Beryllium	0.0042	0.0046	9
Chromium	0.56	0,59	5
Cobali	1,730	2.990	53
Copper	0.031	0.060	64
Nickel	4.69	4.80	2
I hai sum	0.0014	0.0011	24

	Concentra	tion (mg/Kg)	
Analyte	86-S1-131	86-S1-132**	RPD
Vanadium	98	10.3	5
Zinc	1.84	2.25	20

	Concentra	ation (mg/Kg)	
Analyte	86-S1-133	86-S1-134**	RPD
Arsenic	3.86	4.33	11
Barium	150	150	0
Beryllium	0.0072	0.0079	9
Chromium	0.61	0.50	20
Cobalt	2.270	2.280	0
Copper	0 099	0.093	6
Lead	0.017U	0 026	Not calculable
Nickel	5.45	5.46	0
Vanadium	7.3	10.6	37
Zinc	31.3	20,6	41

XIV. Field Blanks

No field blanks were identified in this SDG.

Moffett Air Field, Site 1, CTO 86 Dissolved Metals - Data Qualification Summary - SDG K0504756

SDG	Sample	Analyte	Flag	A or P	Reason
K0504756	88-\$1-132**	Antimony Barium Artenic Cadmium Chromum Cobat Copper Coppe	J (all detects) UJ (all non-detects)	A	Internal standards (%R)
K0504756	86-\$1-134**	Ardimony Baruum Nickel Arsenic Cadmium Chromium Cobait Copper Silver Zine Beryllium	J (all detects) UJ (all non-detects)	A	Internal standards (%R)

Moffett Air Field, Site 1, CTO 86 Dissolved Metals - Laboratory Blank Data Qualification Summary - SDG K0504756

SDG	Sample	Analyte	Modified Final Concentration	A or P
K0504756	86-S1-124	Antimony Beryllium (0.11x) Thallium (0.11x)	0.376U ug/L 0.0073U ug/L 0.0403U ug/L	A
K0504756	86-S1-125	Antimony Beryllium (0.11x)	0.200U ug/L 0.0108U ug/L	Α
K0504756	86-S1-131	Antimony Beryllium (0.11x) Thallium (0.11x)	0.244U ugʻL 0.0042U ugʻL 0.0014U ugʻL	А
K0504756	86-S1-132**	Antmony Beryllium (0.11x) Thallium (0.11x)	0.236U ugʻL 0.0046U ugʻL 0.0011U ugʻL	А
K05C4756	86-S1-133	Beryl-um (0-21x)	0 0072U ug/L	A

SDG	Sample	Analyto	Modified Final Concentration	A or P
K0504756	96-S1-134**	Beryflium (0.22x)	0 0079U ug/L	А
K0504756	86-S1-135	Antimony Beryllium (0.22x)	0 306U ug/L 0.0242U ug/L	A
K0504756	86-S1-136	Beryllium (0.44x)	0.0294U ug/L	A
K0504756	86-S1-126	Beryllium (0.12x) Thallium (0.24x)	0 0065U ug/L 0.0517U ug/L	А
K0504756	86-\$1-128	Beryllium (0.125x) Thaillium (0.25x)	0.0102U ug/L 0.0031U ug/L	A
(0504756	86-S1-129	Beryllium (0.11x) Thallium (0.22x)	0.0054U ug/L 0.0360U ug/L	А
0504756	86-\$1-130	Antimony	0.484U ug/L	A

APPENDIX D GROUNDWATER HYDROGRAPHS

FIGURE D-1

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT
GROUNDWATER HYDROGRAPHS, WELLS WI-LAND WI-IR

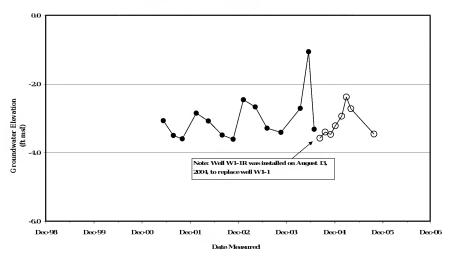


FIGURE D-2

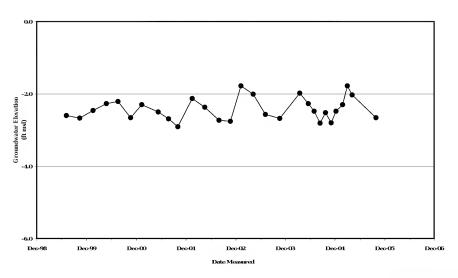


FIGURE D-3

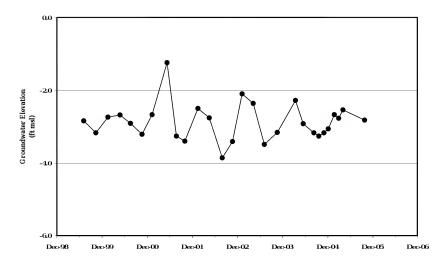


FIGURE D-4 DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT GROUNDWATER HYDROGRAPH, WELL W1-7

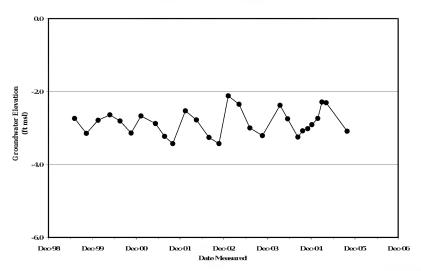


FIGURE D-5

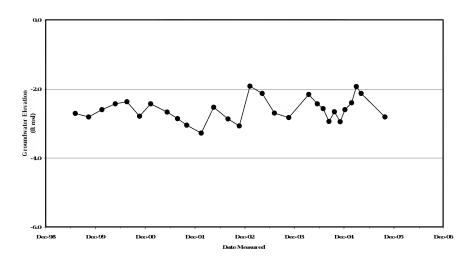


FIGURE D-6

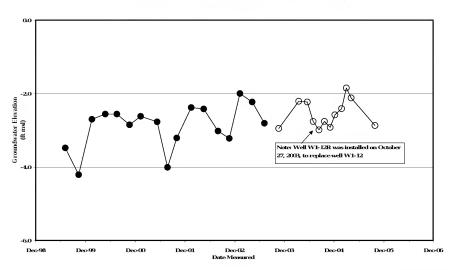


FIGURE D-7

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT
GROUNDWATER HYDROGRAPH, WELL WI-14

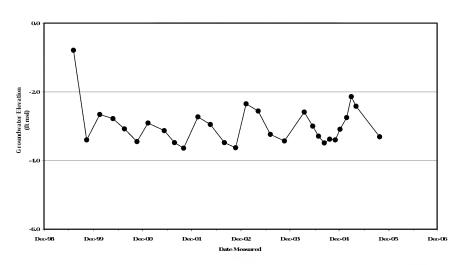


FIGURE D-8

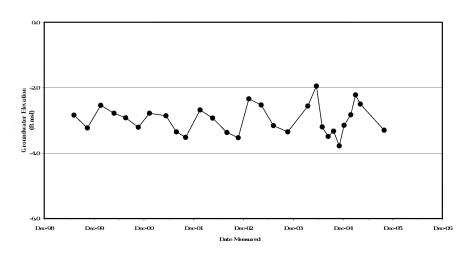


FIGURE D-9

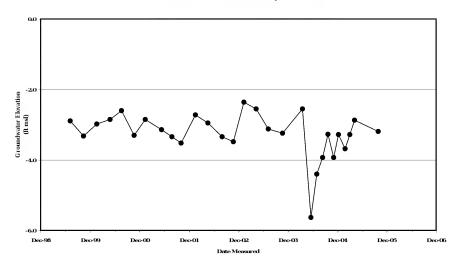


FIGURE D-10

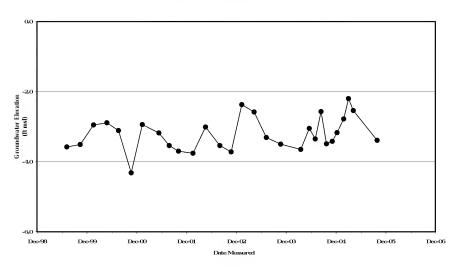


FIGURE D-L1

DRAFT SITE LLANDFILL 2005 ANNUAL REPORT
GROUNDWATTER HYDROGRAPH, WELL WI-20

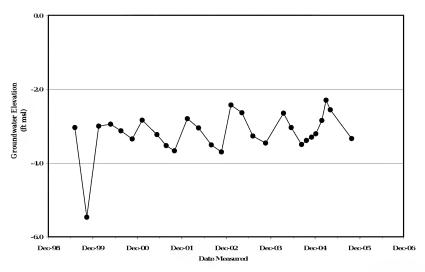


FIGURE D-12

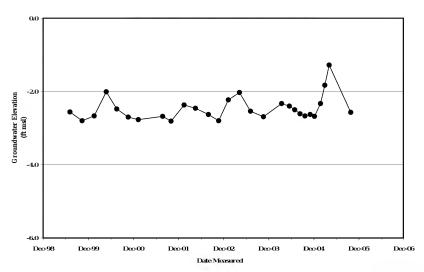
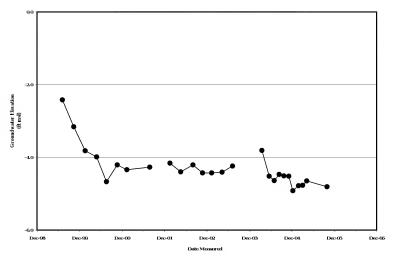


FIGURE D-13



Notes:

1. Breaks in hydrograph line indicate that the collection trench was dry during the respective time period.

FIGURE D-14

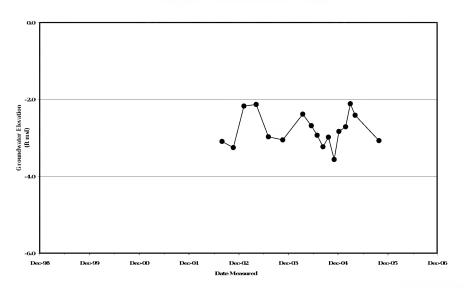


FIGURE D-15

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT GROUNDWATER HYDROGRAPH, PIEZOMETER PZ1-18

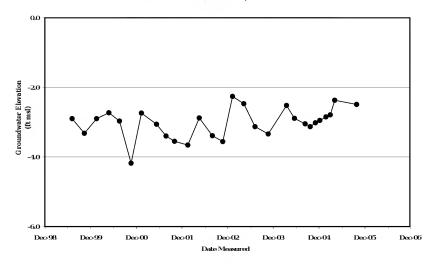


FIGURE D-16

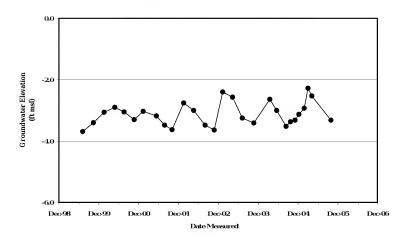


FIGURE D-17 DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT GROUNDWATER HYDROGRAPHS, PIEZOMETER PZ1-18 AND WELL W1-19

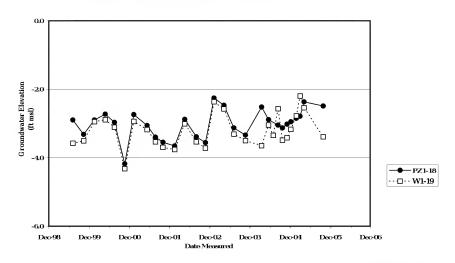
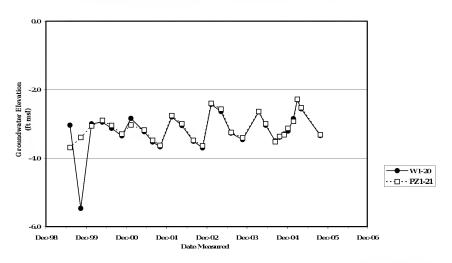


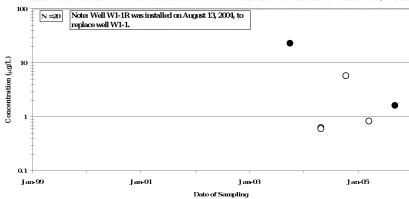
FIGURE D-18

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT
GROUNDWATER HYDROGRAPHS, PIEZOMETER PZ1-21 AND WELL W1-20



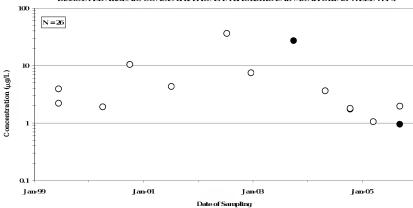
APPENDIX E GROUNDWATER MONITORING POINT DATA GRAPHS

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED ARSENIC CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-1/WI-IR



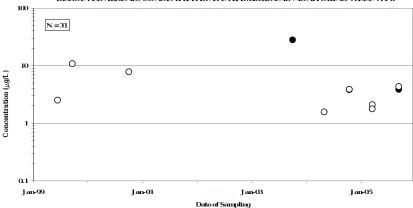
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- 4. N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED ARSENIC CONCENTRATIONS IN BACKGROUND MONITORING WELL WI-5



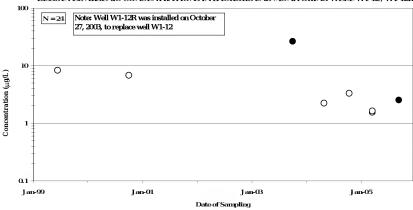
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDILL 2005 ANNUAL REPORT DISSOLVED ARSENIC CONCENTRATIONS IN BACKGROUND MONITORING WELL WI-8



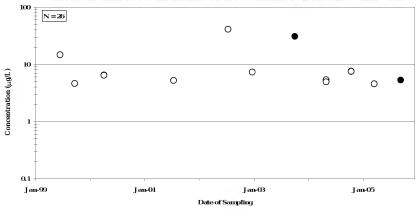
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED ARSENIC CONCENTRATIONS IN BACKGROUND MONITORING WELL WI-12/WI-12R



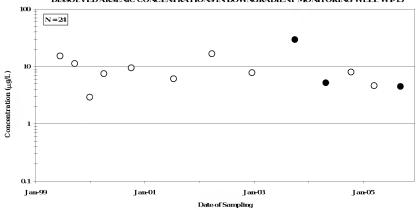
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED ARSENIC CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-14



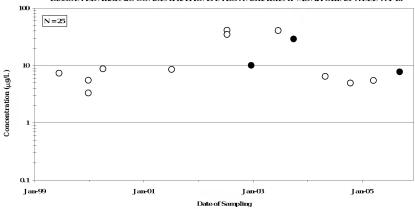
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED ARSENIC CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-15



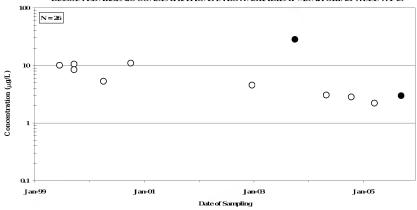
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED ARSENIC CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-16



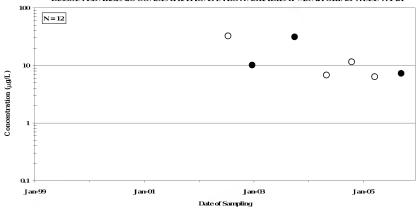
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED ARSENIC CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-19



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

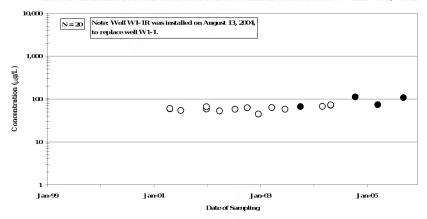
DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED ARSENIC CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-24



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

FIGURE F-10

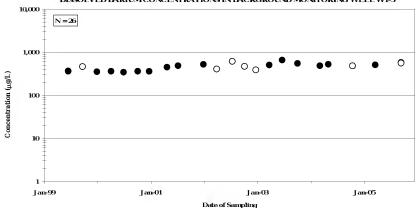
DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED BARIUM CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-1/WI-IR



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- 4. N = Total number of samples.

FIGURE F-11

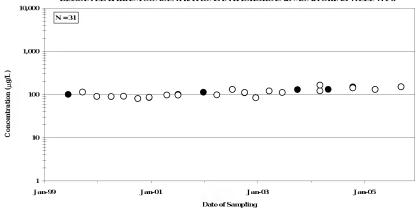
DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED BARIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL WI-5



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

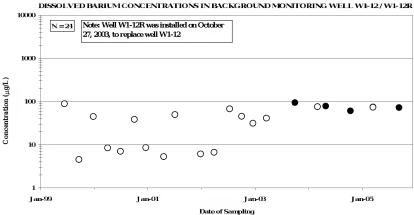
FIGURE F-12

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED BARIUM CONCENTRATIONS IN BACKGROUND MONITORING WELL WI-8



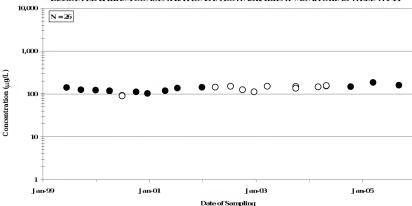
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT



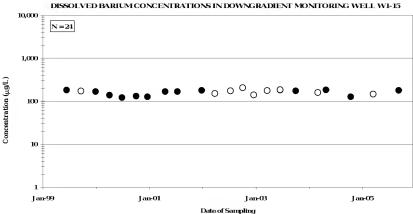
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED BARIUM CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-14



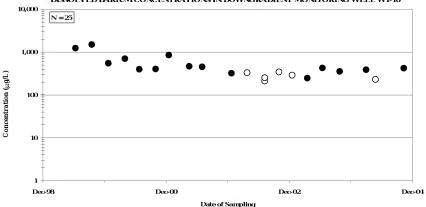
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE I LANDFILL 2005 ANNUAL REPORT



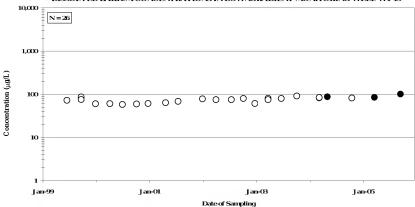
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED BARIUM CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-16



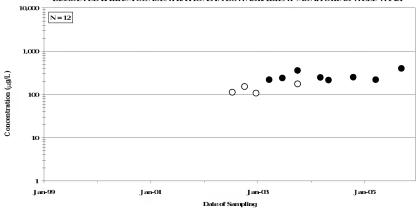
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED BARIUM CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-19



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

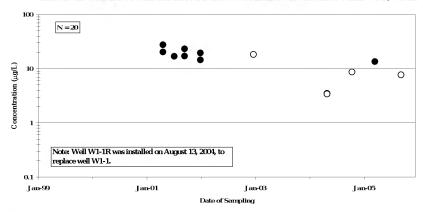
DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED BARIUM CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-24



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

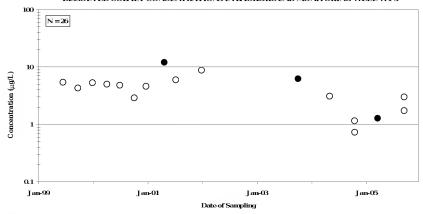
FIGURE E-19

DRAFT SITE I LANDFILL 2005 ANNUAL REPORT DISSOLVED COBALT CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-1/WI-IR



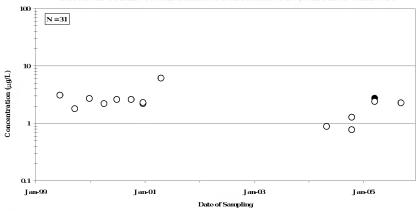
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- 4. N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COBALT CONCENTRATIONS IN BACKGROUND MONITORING WELL WI-5



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

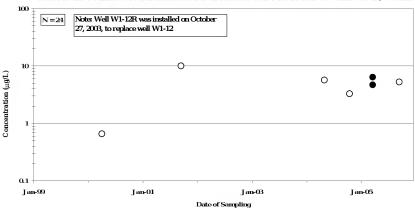
DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COBALT CONCENTRATIONS IN BACKGROUND MONITORING WELL WI-8



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

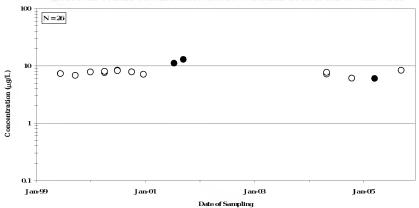
FIGURE F-22

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COBALT CONCENTRATIONS IN BACKGROUND MONITORING WELL WI-12 / WI-12R



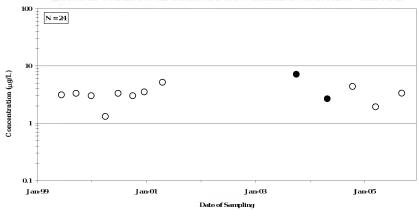
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COBALT CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-14



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

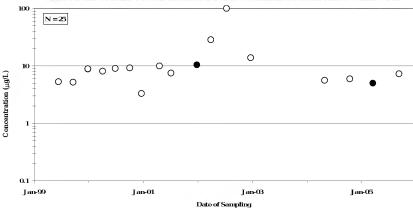
DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COBALT CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-15



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- 4. N = Total number of samples.

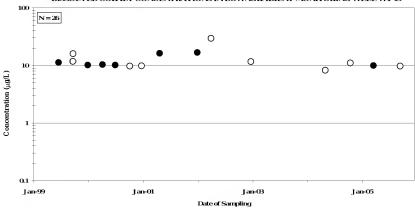
FIGURE E-25

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COBALT CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-16



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

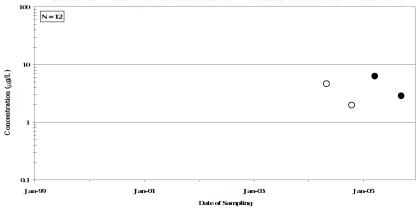
DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COBALT CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-19



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

FIGURE E-27

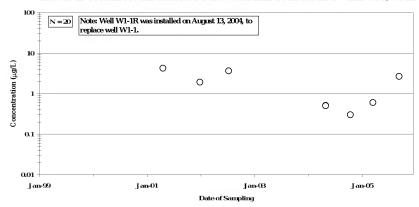
DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COBALT CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-24



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

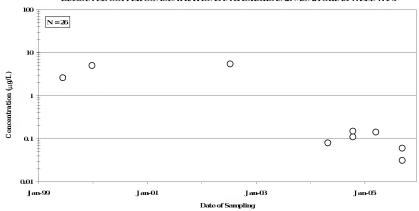
FIGURE E-28

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COPPER CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-1/WI-IR



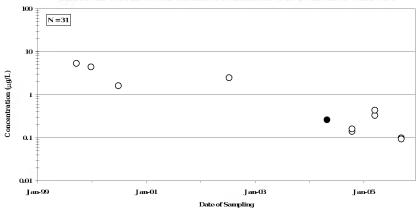
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- ${\bf 3. \ Closed \ symbols \ indicate \ concentrations \ equal \ to \ or \ greater \ than \ the \ laboratory \ reporting \ limit.}$
- 4. N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COPPER CONCENTRATIONS IN BACKGROUND MONITORING WELL WI-5



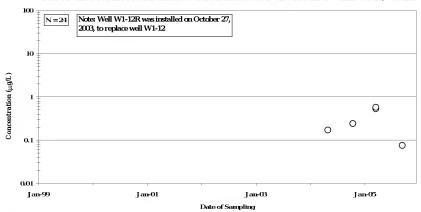
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COPPER CONCENTRATIONS IN BACKGROUND MONITORING WELL WI-8



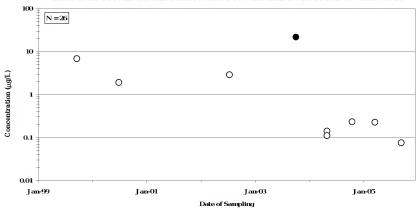
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COPPER CONCENTRATIONS IN BACKGROUND MONITORING WELL WI-12/WI-12R



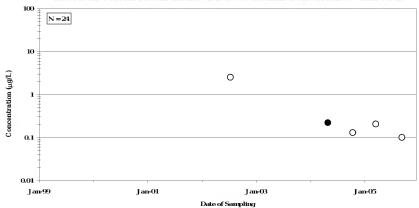
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COPPER CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-14



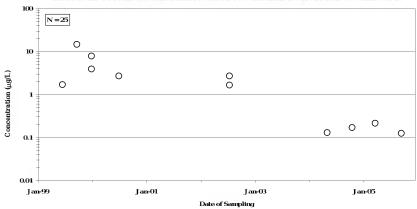
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COPPER CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-15



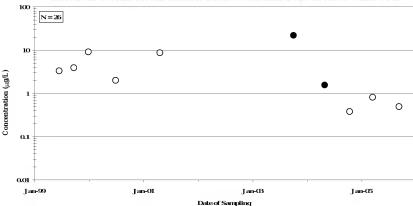
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COPPER CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-16



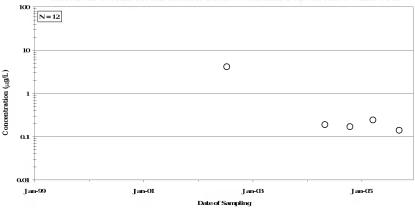
- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COPPER CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-19



- Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- 4. N =Total number of samples.

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT DISSOLVED COPPER CONCENTRATIONS IN DOWNGRADIENT MONITORING WELL WI-24



- 1. Non-detect results are not plotted.
- 2. Open symbols indicate estimated values.
- 3. Closed symbols indicate concentrations equal to or greater than the laboratory reporting limit.
- N = Total number of samples.

APPENDIX F METHANE MONITORING DATA GRAPHS

FIGURE F-1

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT
TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-1

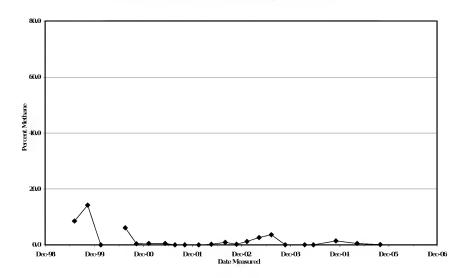


FIGURE F-2

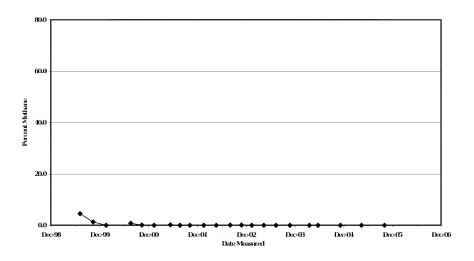


FIGURE F-3

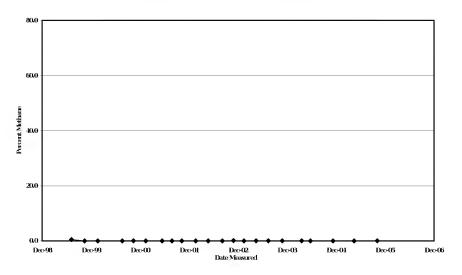


FIGURE F-4

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT
TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-4

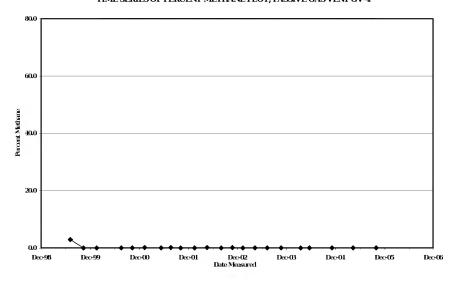


FIGURE F-5

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT
TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-5

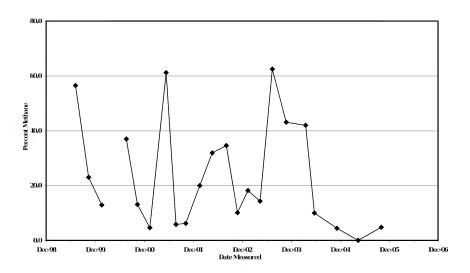


FIGURE F-6

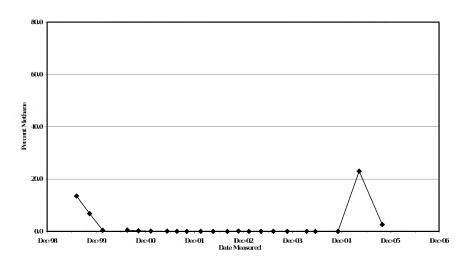


FIGURE F-7

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT
TIME SERIES OF PERCENT METHANE PLOT, PASSIVE GAS VENT GV-7

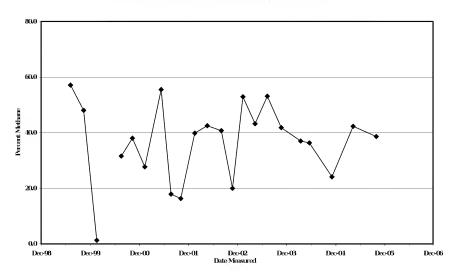


FIGURE F-8

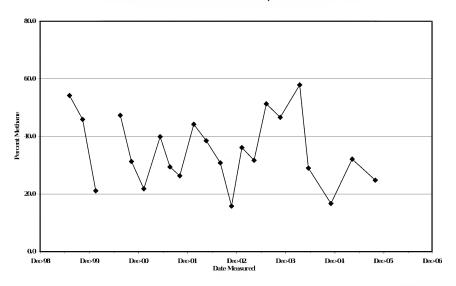


FIGURE F-9

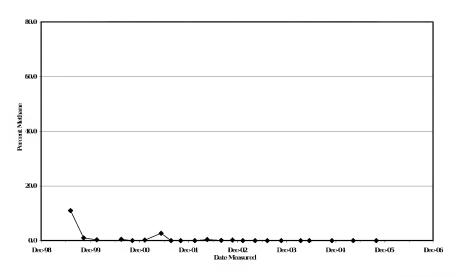


FIGURE F-10

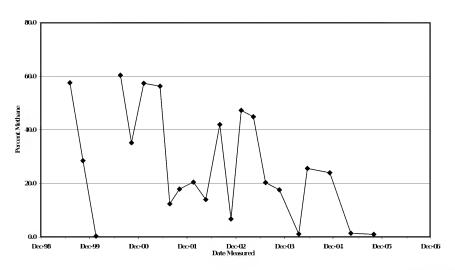


FIGURE F-11

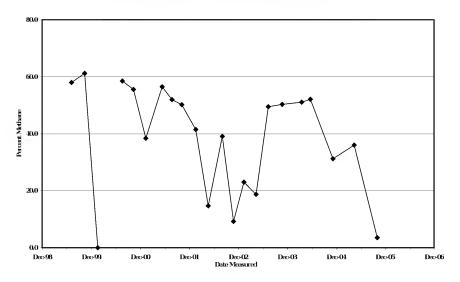


FIGURE F-12

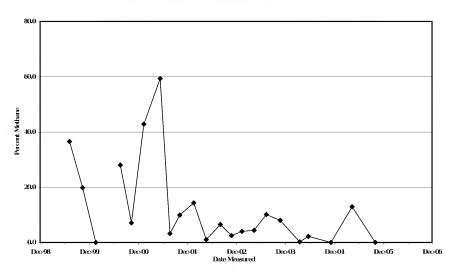


FIGURE F-13

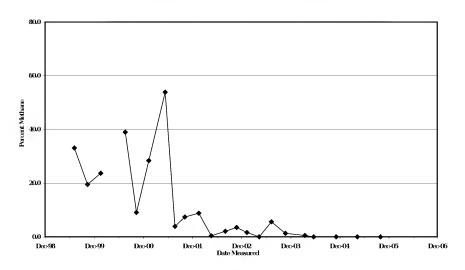


FIGURE F-14

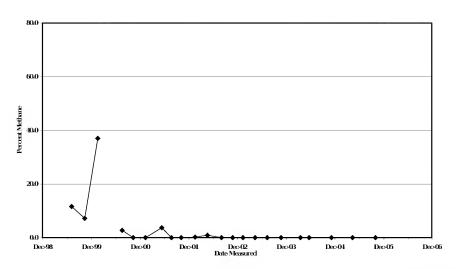


FIGURE F-15

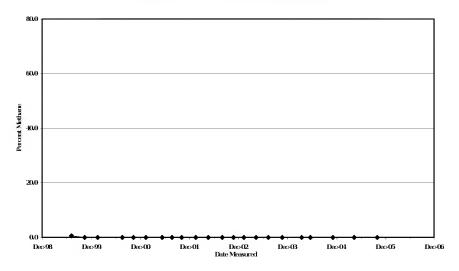


FIGURE F-16

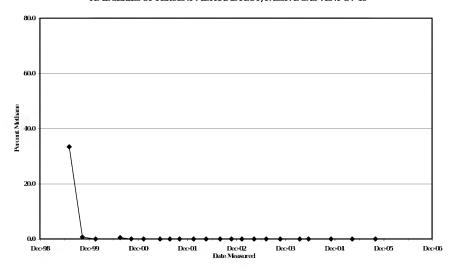


FIGURE F-17

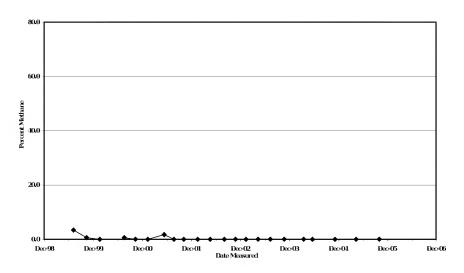


FIGURE F-18

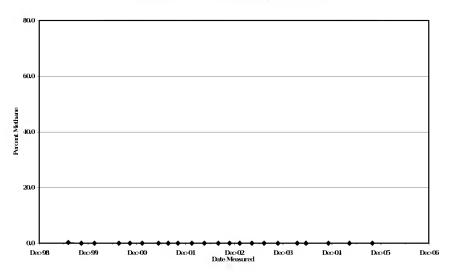


FIGURE F-19

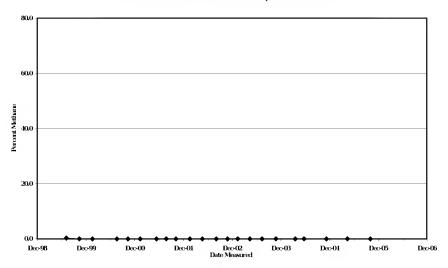


FIGURE F-20

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT TIME SERIES OF PERCENT METHANE PLOT, LANDFILL GAS MONITORING WELL LGMW1-1

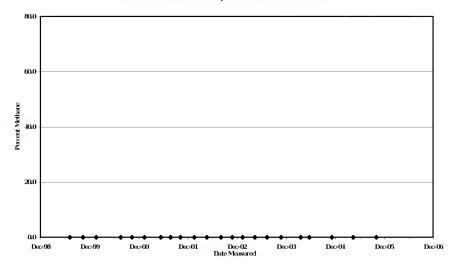


FIGURE F-22

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT TIME SERIES OF PERCENT METHANE PLOT, LANDFILL GAS MONITORING WELL LGMW1-3

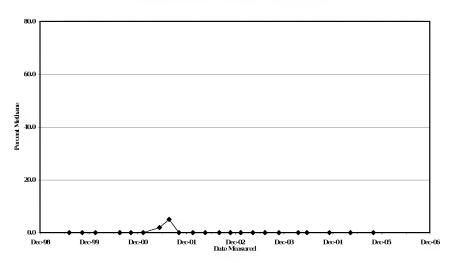
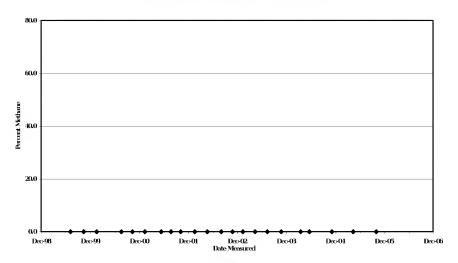


FIGURE F-23

DRAFT SITE 1 LANDFILL 2005 ANNUAL REPORT TIME SERIES OF PERCENT METHANE PLOT, LANDFILL GAS MONITORING WELL LGMW1-4



APPENDIX G

2005 GENERAL SITE INSPECTION REPORTS AND 2005 SANTA CLARA COUNTY LANDFILL INSPECTION REPORTS

2005 GENERAL SITE INSPECTION REPORTS

TABLE 4-1

SITE I LANDFILL GENERAL INSPECTION CHECKLIST AND FREQUENCY

	Frequency"	Good	Needs Maintenance	N/A	Comments
liem					
	L				
CHIEF CO.	Semiannual	`			
26	Semiannual	1			NO GATE SIGNS
Littuilli signs	Semuannual	<			NOWE FOUND
	Semiannual	1			
Clients and Source	Semiannual	1			
	Semiannual	7			
- Raptor perches					
	- Varie				COMPLETED 3/3/05
- Iso-settlement and surveying landfill settlement markers	Every J Loais	1			
	Camiananai	7			
, cracking, slongimis)	Semiannual	7			
II alla respondent	Semiannual	7			in the second
- Cap pleacing	Semiannual	7			NAKS WELL YOU GOOD HARDEN
and the Control					
Discondition (in paint integrity)	Semiannual	7			
- Niger collection for present	Semiannual	7			
- IUGIIIIICanou wa promon	Semiannual	7			
- Concrete containon	Semiannual	7			
Jell Car Maritorino Walls					
Landjill Cas Informer ing integrity)	Semiannual	1			
- Kiset continuou (and present	Semiannual	1			
The file protection (i.e. hollards)	Semiannual	7			
- Italic process (m)	Semiannual	7			
- College count.	Semiannual	7			
- Well cap linegray	Semiannual	7			
- Well locks	Semiannual	1			
Collection Trench Wells					
- Concrete collar condition	Scillaminar	,			
- Protective cover condition	Semiamuat	,			

- Identification number legibility

Seminnual

SITE I LANDFILL GENERAL INSPECTION CHECKLIST AND FREQUENCY

			Condition		
	Frequency	Good	Good Needs Maintenance	N/A	Comments
in	Semiannual	۱,			
Well cap integrity	Carriagnag				
Water drainage	Schmanning				
rate among	Semiannual	7			
Well locks					
oundwater Monttoring wetts and Flesometers	Camiannol		, ,		WI-IR NEEDS PAINTING
Riser condition (i.e., paint, integrity, cover)	Continuation				
Henrification number legibility		1			
Concrete coller condition	Semannual	7			
Collection (i.e. hollarde)	Semiannual	7			
Hallic blockeron (ac., con-	Semiannual	7			
Well cap micking	Semiannual	7			
Walki manage	Semiannual	/			
WCH JOCKS					
ormwater ranoff control	Semiamual	1			SCREENS IN LANCE
Water dramage	Semiamual	1			
Culvert and wench mainage	Semiamual	\	 L		
Riprap	Semiamual	7			
Erosion	Semiannial	1			

RONG WWW. COLUMN

Notes:

Holf 3/28/05

- Settlement

October reainy season ane in May at the end of the rainy season. inspections will be conducted in March and September, except for (a) Frequency indicates minimum requirements. Semiannual the stormwater runoff control, which will be inspected before the inspections also are required after significant storm events and as

(b) Every 5 years from the previous surveying and iso-settlement mapping.

N/A - not applicable Abbreviations and Acronyms:

PinPost-Clost.Talin

TABLE 4-1

SITE I LANDRILL GENERAL INSPECTION CHECKLIST AND FREQUENCY

Sim I I and fill Posts Chaure Long-Term Manuschance Phin		,	Semiannua	- Identification number legibility
		1	Semiannual	- Protective cover condition
		1	Semannual	- Concrete collar condition
				Collection Trench Wells
		Ì	Occurrence	Well locks
		7	Seminannal	- Water dramage
		7	Semiannual	Well cap integrity
		1	Semiannual	- College contacton
		7	Semiamual	Contract Condition
		1	Semiannual	Traffic protection (i.e., bollards)
		1	Semiannual	Mantification top present
		1	Semiannual	River condition (i.e., paint, integrity)
				and the Monitoring Wells
		1	Semiannual	Screen condition
		1	Semiannual	Concrete collar condition
		1	Semiamoual	Identification tag present
		ľ	Continuent	Riser condition (i.e., paint, integrity)
			Semiannual	andfill Gas Vents
				Water Grantage
		7	Semiannual	Cap breaching
		1	Semiannuai	v egetaeou control
		1	Sermannual	Vegetation control and restoration
		1	Semannual	Visual observations of settling (i.e., cracking, sloughing)
			Semiannual	Freeign
			Every 5 Years	lso settlement and surveying landfill settlement markers
				reality Can
		7	Semiannual	Rentor perches
		1	Semiannual	o ioran
ONE STILLS		1	Semiannual	Security fencing and gates
CALL CONTROL STAND			Semiamual	Inspect for nesting owls and burrowing animals
Smart Propositionis		k	Semianunal	Tandfil sions
			Semiannual	Perimeter Road
				eneral Site Conditions
	-		, and and	em
N/A Comments	Needs Maintenance	Good	Frequency	
	Condition	i		

Site I Landfill Post-Chosure Long-Terra Maintenance Phin Former Naval Air Stanon Moffett Field DCN: FWSD-RAC-04-2000

CTO No. 0086, Revision 0, 07

- Identification number legibility

TABLE 4-1

SITE I LANDFILL GENERAL INSPECTION CHECKLIST AND FREQUENCY

Good Needs Maintenance N/A Comments		Frequency ^a Semiannual Semiannual Semiannual Semiannual Semiannual Semiannual Semiannual Semiannual Semiannual Semiannual Semiannual Semiannual Semiannual Semiannual Semiannual Semiannual	ten Well cap integrity Warel depintegrity Warel depintegrity Warel depintegrity Well locks Well locks Well locks Well and Piczonetier Riser condition (i.e., paint, integrity, cover) Identification number legibility Concrete collar condition I raffic protection (i.e., bollards) Well app integrity Well app integrity Well app integrity Well obes Well locks Well obes
-------------------------------------	-------------	--	---

Notes:

Settlement

Semantinar

(a) Frequency indicates minimum requirements. Semiannual imprections will be conducted in March and September, except for imprection will be considered reduced before the the stemmenter model for control, which will be imspected before the October reainy season and in May at the end of the rainy season imprecious also are required after significant storm events and as merical.

(b) Every 5 years from the previous surveying and iso-settlement mapping.

Abbreviations and Acronyms: N/A - not applicable

Site I Landfill Pos

TABLE 4-1

SITE I LANDFILL GENERAL INSPECTION CHECKLIST AND FREQUENCY

Site 1 Landbld Post-Crostite Long-Lenn Medical Field					
T. Handaras Physics	-		1	Semiannual	Identification number legibility
			1	Semiannual	Protective cover condition
	1		7	Semiannual	Concrete collar condition
					Collection Trench Walls
			1	Semannual	Well locks
			1	Semiannual	Water drainage
	†		1	Semiannual	- Well can integrity
	1		1	Semiamuai	Concepts collar condition
	1		1	Semiannual	Traffic protection (i.e., bollards)
			1	Semiannual	- Medification tag present
			(Semiannual	Dient condition (i.e. paint, integrity)
					- Setecil condition
			Ī	Semiannual	- College collar constraint
			1	Semiannual	Concrete collar condition
	Ì		1	Semianmual	Lightification tag present
			7	Semannal	Biser condition (i.e., paint, integrity)
					Landfill Gas Vents
			Ī	Chamber	- Water drainage
			Ĭ	Semiamua	- Cap breaching
			Ī	Semiannual	Vegetation colluct and resemble
CHEMOLES ICK BOLING IN THE		CHIMP! SUBSI		Semiannual	- Visual coort and restoration
To Many 15 5307				Semiannual	Viscal cheerystions of settling (i.e., cracking, sloughing)
			1	Semiamual	Freeign
			1	Every 5 Years"	- Iso-settlement and surveying landfill settlement markers
					Landfill Cap
			-	Settinginities	- Raptor perches
			-	Comingningi	- Riprap
			1	Comingnation	- Security fencing and gates
			1	Camiannia	- Inspect for nesting owls and burrowing aimiais
TWO CARRENDS T- EAST REUB			(Semiannual	- Landiiu signs
-NW WEAR RUAD			7	Semiamual	- Perimeter Koad
			7	Semiannual	General due Commons
					recur
Comments	N/A	Needs Maintenance	Good	Frequency	Tem
		Condition			

Site i Landfill Post-Closure Long-Torm Maintenance Plan Somer Navai Air Station Mottett Field DCNs; FWSD-DAC-04-2009 CTO No. 0085, Revision 0, 06/18/04

TABLE 4-1

SITE I LANDEILL GENERAL INSPECTION CHECKLIST AND FREQUENCY

		İ			
			Condition		
	Frequency	Good	Good Needs Maintenance	N/A	Comments
Item					
- Well can integrity	Sermannuar	k			
William	Semannual	,			
- Water chamage	Semiannual	1			
Well locks					
Groundwater Monitoring Wells and Piezometers					
Riser condition (i.e., paint, integrity, cover)	Semiannual	7			
Identification number legibility		0			
Concrete colling condition	Semiannual	7			
Colleges Commercial Colleges	Semiground	7			
- Hattle brokeston (no.) comment	Semianual	7			
- Well cap mcguy	Semiannual	7			
- Water drainage		1			
- Well locks	Schuntana	1			
Stormwater Runoff Control					
Water drainage	Semiannual	1			
Orbert and trench drainage	Semiannual	1			
- Bipran	Semiannual	1			
- Erosion	Semiamual	1			
Continue	Semiannual	1			

Notes

- Semement

(a) Frequency indicates minimum requirements. Semianmal inspections will be conducted in March and September, except for inspections will be conducted in March and September except for the stormwater runoff control, which will be inspected before the October resizy senson are in May at the end of the rainy season. Inspections also are required after significant storm ovents and as needed.

(b) Every 5 years from the previous surveying and iso-settlement mapping.

Abbreviations and Aeronyms: N/A - not applicable

Just Service

CTO No. 0086, Revision 9 14/18/04

TABLE 4-1

SITE I LANDELL GENERAL INSPECTION CHECKLIST AND FREQUENCY

Site 1 Landfill Post-Closure Long-1 emi maniferance				- Identification number legionity
		(Semiumual	- Protective cover condition
		5	Semiannual	- Concrete construction
		1	Semiannual	Collection
		+		Callection Trench Wells
				- Well locks
		2	Sentiamual	- Water dramage
		1	Semiannual	- Well cilp integraty
			Semiannual	- Concrete collat collation
		1	Semiannual	- I raine protection (tie, comme)
		1	Semannual	- Identification (1 e hollards)
		5	Semiannual	- Riser condition (i.e., paint, incesting)
		1	Semiannual	Landfill Gas Monitoring weis
				Screen condition
		1	Semannual	- College College Constitution
		1	Semiamual	- Identification as Present
			Seguantinar	The difference of the second
		7		Ricer condition (i.e., paint, integrity)
		7	Semianoual	Landfill Gas Vents
				- Water orainage
		1	Semiannual	- Cap bieaciing
		1	Semiannual	- vegetation colinor and a
		1	OCHHamma.	Wasterion control and restoration
/ Yoweo		į	Community	- Visual observations of setting (i.e., cracking, storgames)
7.		١	Semiannual	- Etosiou
		1	Semiannual	- Iso-settlement and surveying mildrin second
		5	Every 5 Years	Landfill Cap
				- Raptor perches
		7	Semiaannal	- Riprap
		1	Semiannual	- Security fericing and gares
		1	Semiannual	Inspect for results own and ourse
HOOS SHEETS CEACHED AT BOLTS WITHI		1	Semiannual	- Landill signs
STORE DISPREAS & GOTO MOLE		1	Semiamunal	Permitter Koud
		1	Semiaminal	General Sile Commission
				Item
	Į	Coot	Mequency	
Comments	Z			
	Condition			

TABLE 4-I

STTE I LANDFILL GENERAL INSPECTION CHECKLIST AND FREQUENCY

Carrier.	i				
			Condition		
	Frequency	Good	Needs Maintenance	N/A	Comments
Item	Semiannual	<			
Well can integrity	o comme				
	OCHIOTOTOM.	1			
- Water dialnage	Semiannual	7			
- Well locks					
Groundwater Monitoring Wells and Ptezonieters	Semiannual	7			
- Riser condition (i.e., paint, integrity, cover)		O X			
- Identification number legibility	Semiannual	7			
- Concrete collar condition	Semiannual	7			
- Traffic protection (i.e., boliards)	Carrionnia	ŗ			
Well can integrity	2 000	7			
	Schudiomen				
- Walter manage	Semannal	,			
- Well locks					Soul IN HACE
Stormwater Runoff Control	Sentiamual	7			3012130
- Water drainage	Semianmal	7			
- Culvert and trench drainage	Semianoual	7			
- Riprop	Semiannual	Į			
Erosion	Scipianiual	1			

- Settlement

- (a) Frequency indicates minimum requirements. Semiannual
- Inspections also are required after significant storm events and as October reainy season ane in May at the end of the rainy season. the stormwater runoff control, which will be inspected before the inspections will be conducted in March and September, except for
- (b) Every 5 years from the previous surveying and iso-settlement mapping

N/A - not applicable Abbreviations and Acronymse

CTO No. 0036, Revision 6 114

2005 SANTA CLARA COUNTY LANDFILL	INSPECTION REPORTS

Closed Disposal Site Inspection Report

CALIFORNIA INTEGRATED WAS TE MANAGENENT BOAGO

MILITYTE NUMBERON .	epartment of Environmental Health GRAM CODE	ISPECTION DATE:	Tore is 10	:00 AM	ASPECT ON TIPE
43-AA-0005	L *L STATE S	2122.05	24	30	
		2/23/05			
FACILITY NAME NAS.	A/MOFFETT FIELD - Sit	es 1 & 22 Landfills	Day 1	Merchang	
FACILITY LOCATION	Moffett Field,	CA O	OVINER /	d States Go	/ernment
ASPECTOR	INSPECTOR SIGNATURE	in Verminal	ALSO PRESENT	AL C.	1 - 0 - N
Chris Rummel, R.E.H.S.	(000	W TYWINING	1	Mary Tal	KET - 1101.18
THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE THE STANDARDS BELOW ARE CONSIDERED IN CO					
POSTCLOSURE:	MAPONILE UNLESS CHERWISE MARKE				
20750 - SITE MAINTENANCE	Z. S. A. BA	DRAINAGE AND ERDS 20820 - DRAINAGE ERO	SCION CONTROL	510-486-518-12-12-12-12-12-12-12-12-12-12-12-12-12-	, y , A , I
21180 - POSTCLOSURE I/A NTENANCE		21150 - DRAINAGE/ER			+++
71190 - POSTOLOSURE LATID USE		MONTORING AND CO		10.540.00	SALACIDES!
GAS MONITORING AND CONTROL SYSTEMS.	The second second	20790 - LEACHATE CO		244 . Tr. 191	
20318 EXEMPTIONS		20830 - LITTER CONTR			
20919 - GAS CONTROLS		21160 - LF GAS COUTA	TMCD BTAHCABIL D	TCA	
60919 5 - EXPLOSIVE GAS CONTROL		SECURITY: John John		and the second	COLUMN TO
20921 - GAS MONITORING JONITRO		20600 - SITE SECURIT			
20923 - MONITORING 20923 - FERIMETER MONITORING NETWORK		21135 - SECURITY AT C			
20951 STRUCTURE MON. CRING NETWORK		21137 - STRUCTURE R			
20092 - MONITORED PARAMETERS		RECORDS	ESSENTE D. 19	Teach of Theen	Lave La Color
20923 MONITORING ARE LIERCY		21130 - EMERGENCY R 21170 - RECORDING	SE CREE FLAN		
20954 - REPORTING		21200 - CHANGE OF CH	EA ESQUIP		
2093 CONTROL		CLOSURE PLANS	ACTION DISCHARD	W. Jersey	or some participation
GPA DINGIFIE AL COVER	STATE OF STATE OF	21860 - CERTIFICATIO	VCF ULOSURE		
ZOREG - GRADING OF FILL SURFACES		21890 - REVISION OF A		R C/PO MAINT	
21140 - FIÑAL COVER		OTHER WAS A SEC	CONTRACTOR S	1 Jan 1917	
2:142 - FINAL GRADING					
21146 - SEOPE STABILIT:					
SITE 1: Site inspection revealed no p	roblem areas Site looked a	excellent.			
SITE 22: No deficiencies to report.					
	 				
		·			
DOCUMENTS RECEIVED SINCE LAS	ST INSPECTION 11/17/04:				
March 2004 Site 1 Sampling Event, Fo					
'1ay 2004 Site 1 Sampling Event, Form					
					

STATE OF CALIFORNIA

Closed Disposal Site Inspection Report

CALIFORINA INTEGRATED WASTE MANAGEMENT BOARD

CIV/MS-188 (New 6/04) Enforcement Agency: Santa Clara County, Department of Environmental Health - Local Enforcement Agency Page 1 of 1 INSPECTION TIME 10:00 AM 43-AA-0005 LOCAL = 1 TIME OUT 12:00 5/18/05 hrs. RECEIVED BY (OPERATOR) FACILITY NAME NASA/MOFFETT FIELD - Sites 1 & 22 Landfills FACILITY LOCATION Moffett Field, CA United States Government INSPECTOR INSPECTOR SIGNATURE Chris Rummel, R.E.H.S. brus Kumm Bill Oale + David Smith THE ABOVE FACILITY WAS INSPECTED FOR CONFLIANCE WITH APPLICABLE SECTIONS OF DIMISION TO OF PUBLIC RESOURCES CODE (PRC) AND TITLE 27 CALIFORNIA CODE OF RESULATION (CCR. THE STANDARDS BELOW ARE CONSIDERED IN COMPLIANCE UNLESS OTHERWISE MARKED WITH ONE OF THE FOLLOWING: V = MOLATION A = AREA OF CONCERN NA = NOT APPLICABLE OSIGLOSURE L. A. HE URADAGE AND ERGEIOU CONTROL 0750 - SITE MAINTENANCE 20R20 - DRAINAGE/EROSION CONTROL 21180 - POSTCLOSURE MAINTENANCE 21150 - DRAINAGE/EROSION CONTROL 21190 - POSTCLOSURE LAND USE FOR TORING AND CONTROL SYSTEMS 20790 - LEACHATE CONTROL GAS MONIFORING AND CONTROL SYSTEMS 20918 - EXEMPTIONS 20830 - LITTER CONTROL 20919 - GAS CONTROLS 21160 - LF GAS CONTROLLEACHATE CONTACT 20919.5 - EXPLOSIVE GAS CONTROL SECURITY
20530 - SITE SECURITY 20921 - GAS MONITORING/CONTROL 20923 - MONITORING 21135 - SECURITY AT CLOSED SITES 20925 - PERIMETER MONITORING NETWORK 21137 - STRUCTURE REMOVAL 20931 - STRUCTURE MONITORING RECORDS 20932 - MONITORED PARAMETERS 21130 - EMERGENCY RESPONSE PLAN 20933 - MONITORING FREQUENCY 21170 - RECORDING 20934 - REPORTING 21200 - CHANGE OF OWNERSHIP CLOSURE PLANS 20937 - CONTROL GRADINO/FINAL COVER 21880 - CERTIFICATION OF CLOSURE 20650 - GRADING OF FILL SURFACES 21890 - REVISION OF APPROVED PLANS FOR CAPC MAINT 21140 - FINAL COVER 21142 - FINAL GRADING 21145 - SLOPE STABILITY COMMENTS (USE CIVIMB 3 FOR ADDITIONAL SPACE) SITE 1: Site inspection revealed no problem areas. Site looked excellent. SITE 22: No deficiencies to report DOCUMENTS RECEIVED SINCE LAST INSPECTION 2/23/05: March 18.2005 Final Site 1 Landfill Post-Closure Long-Term Monitoring Plan Rev.0 March 18,2005 Final Site 1 Landfill Post-Closure Long-Term Maintenance Plan Rev.0 March 31, 2005 Groundwater Report Operable Unit 1, Rev. 0

STATE OF CALIFORNIA CIWMS-188 (New 6/04)

Closed Disposal Site Inspection Report

CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

Enforcement Agency: Senta Clara County, Department of Environmental Health - Local Enforcement Agency Page 1 of 1 INSPECTION DATE INSPECTION TIME FACILITY FILE NUMBER/Unit# PROGRAM CODE THE IN 10:00 AM LOCAL = L STATE = S LOCAL = I 43-AA-0005 8/24/05 TIME OUT 12.00 RECEIVED BY (OPERATOR)
Gary Munekawa FACILITY NAME NASA/MOFFETT FIELD - Sites 1 & 22 Landfills FACILITY LOCATION Moffett Field, CA

AGUIT LOCATION MORE THE LD - STORS 1 & 22 Landfills Gary Munekawa Land Thursdature AGUIT LOCATION MORE THE LD - STORS 1 & 22 Landfills Gary Munekawa Land Thursdature The Location Control of the Control

POSTCLOSURE	V A NA	DRAINAGE AND EROSION CONTROL	٧	A	N/
20750 - SITE MAINTENANCE		20820 - DRAINAGE/EROSION CONTROL			
21180 - POSTCLOSURE MAINTENANCE		21150 - DRAINAGE/EROSION CONTROL		П	Г
21190 - POSTCLOSURE LAND USE		MONITORING AND CONTROL SYSTEMS		-	
GAS MONITORING AND CONTROL SYSTEMS	3	20790 - LEACHATE CONTROL			
20918 - EXEMPTIONS		20630 - LITTER CONTROL			Г
20919 - GAS CONTROLS		21160 - LF GAS CONTROLILEACHATE CONTACT		\Box	Г
20919.5 - EXPLOSIVE GAS CONTROL		SECURITY			
20921 - GAS MONITORING/CONTROL		20530 - SITE SECURITY			
20923 - MONITORING		21135 - SECURITY AT CLOSED SITES			
20925 - PERIMETER MONITORING NETWORK		21137 - STRUCTURE REMOVAL			
20931 - STRUCTURE MONITORING		RECORDS			
20932 - MONITORED PARAMETERS		21130 - EMERGENCY RESPONSE PLAN		П	Г
20933 - MONITORING FREQUENCY		21170 - RECORDING		\Box	
20934 - REPORTING		21200 - CHANGE OF OWNERSHIP		П	Γ
20937 - CONTROL		CLOSURE PLANS			
GRADING/FINAL COVER		21880 - CERTIFICATION OF CLOSURE		П	Г
20650 - GRADING OF FILL SURFACES		21890 - REVISION OF APPROVED PLANS FOR C/PC MAINT		П	Г
21140 - FINAL COVER		OTNER			
21142 - FINAL GRADING	-111			\Box	
21145 - SLOPE STABILITY			$\neg \vdash$	П	Г

COMMENTS (USE COMMB 3 FOR ADDITIONAL SPACE)

SITE 1: Site inspection revealed no problem areas. Site looked excellent.

Gas vents were tested during the inspection using a portable methane gas detector with the following results:

GV-3 = 0 ppm, GV-4 = 0 ppm, GV-5 = 7% gas, GV-7 = 44% gas, GV-8 = 40% gas, GV-10 = 60% LEL, GV-11 = 38% gas,

GV-12 = 1 to 3% LEL.

SITE 22: No deficiencies to report.

Perimeter methane gas monitoring well in the permieter road, EGMW-3 was found to have a 3% gas reading when stablized,

with an initial spike during purging at ranges up to 20% gas by volume. Previous testing of this well by Foster Wheeler indicated the same reading of 3% gas. The limit for parimeter gas migration is 5% gas at the facility boundary, which in this case is not at the perimeter of the waste, but rather the property boundary. Thus, reading of this well above 5% gas are not necessarily a violation.

Note: Semi-annual monitoring plan with sampling in February and August is appropriate.

DOCUMENTS RECEIVED SINCE LAST INSPECTION 5/18/05:

June 22, 2005 Site 1 Landfill - 2004 Annual Report-Draft

Aug. 12, 2005 Site 22 Post Construction Operaturns, Maintenance, and Monitoring Plan Addendum - Rev. 0 - Draft

Closed Disposal Site Inspection Report

CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

ACILITY FILE NUMBER/Unit #	PROGRAM CO	DE .		2.	SPECTION DATE	TIME IN 10:00 AM	INSPECTION T	ME
10.14.0005	LOCAL = L STAT	E=S	ME	1 1	DD YY			
43-AA-0005	LOCAL =	L			11/16/05			
CILITY NAME	NASA/MOF	FETT FII	ELC	- Si	es 1 & 22 Landfills	RECEIVED BY (OPERATOR) Gary Munekawa Cong	Musha	ne
CILITY LOCATION		Moffe	ett F	ield,	CA /	OWNER United States	overnment	
PECTOR	INSP	ECTOR/SIZIN/	TURE	1	} 	ALSO PRESENT	- CTOTTINION	_
Chris Rummel, R E.H	H.S.	aw	is	\triangle	umnes	Bill Ogle, Da		
E ABOVE FACILITY WAS INSPECTED FOR	COMPLIANCE WITH AP	PLICABLE SEC	TIONS	OF DIV	SION 30 OF PUBLIC IFESQUECE	S CODE (PRC) AND TITLE 27 CAUFORNS4	CODE OF REGULAT	NON (
		UMLESS OTHE	RWISE	MARKI	WITH ONE OF THE FOLLOWIN	IG V = VIOLATION A = AREA OF CONCER	N NA = NET APPLIC	240LE
STCLOSURE	190° -	- 20%	V A	NA.	DRAINAGE AND EROS	SON CONTROL	- V	/ A
750 - SITE MAINTENANCE			T		20820 - DRAINAGE/ER	OSION CONTROL		Т
180 - POSTCLOSURE MAINTENANCE	E			1-1	21150 - DRAINAGE/ER	OSION CONTROL		T
190 - POSTCLOSURE LAND USE			+	П	MONITORING AND CO	NTROL SYSTEMS	1-21-1	
AS MONITORING AND CONTROL SY:	STEMS	11.00	13 1	105	20790 - LEACHATE CO			T
918 - EXEMPTIONS		-	Ť	1-1	20830 - LITTER CONTE	ROL		+
919 - GAS CONTROLS			+	Н		ROLLEACHATE CONTACT		†
919.5 - EXPLOSIVE GAS CONTROL			+	\vdash			-177	-
921 - GAS MONITORING/CONTROL			+	\vdash	20530 - SITE SECURIT			Т
923 - MONITORING		-	╈	Н	21135 - SECURITY AT		+	+
925 - PERIMETER MONITORING NET	TWORK		╅	\vdash	21137 - STRUCTURE F			+
931 - STRUCTURE MONITORING	· · · · · · · · · · · · · · · · · · ·		+	Н		CHEST TO STATE		
932 - MONITORED PARAMETERS			+	\vdash	21130 - EMERGENCY			Ť
933 - MONITORING FREQUENCY				+	21170 - RECORDING			+
934 - REPORTING			+	+	21200 - CHANGE OF C	WNERSHIP		+
937 - CONTROL		-	+	+		property and the second	100	بالم
RADING/FINAL COVER	P1 - P10 Sec. 1		. : .	200	21880 - CERTIFICATIO			Ť
650 - GRADING OF FILL SURFACES		1-2-	1	1		APPROVED PLANS FOR CIPC MAIL	ur .	+
1140 - FINAL COVER			+	+		AFFROVED FOR A CITY ON CITY ON A		4
1142 - FINAL GRADING			+	+	ALLEN OF A SEC	TOTAL STOREGE ST.	(40)	
1145 - SLOPE STABILITY			+	+				+
ITE 1: Site inspection revea	iled no problem	areas. S	te k	oked	excellent.			_
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						·		
								_
						-100		
SITE 22: No deficiencies to n	opert							_
ITE 22. No deliciencies to n	eport.							_
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OCUMENTS RECEIVED SI	INCE LAST INS	PECTION	8/2	4/05				
Vone			_					_
								_

APPENDIX H CORRESPONDENCE



California Regional Water Quality Control Board

San Francisco Bay Region

Arnold Schwarzenegger

1515 Clay Street, Suite 1400, Oakland, California 94612 (510) 622-2300 + Fax (510) 622-2460 http://www.swreb.ca.gov/rwqcb2

> Date: MAY 1 2 2005 File No.: 2189.8009 (AVC)

Base Realignment and Closure Program Management Office West Attn: Mr. Richard Weissenborn, Lead RPM 1230 Columbia Street, Suite 1100 San Diego, CA 92101-8517

Subject: Concurrence on the Final Site 1 Landfill Post-Closure Long-Term Monitoring
Plan, Former Naval Air Station Moffett Field, Moffett Field, California, Revision

0, dated March 18, 2004

Dear Mr. Weissenborn:

Thank you for the Final Site 1 Landfill Post-Closure Long Term Monitoring Plan, Former Naval Air Station Moffett Field, Moffett Field, California, Revision 0, dated March 18, 2005, received on March 21, 2005, by the San Francisco Bay Regional Water Quality Control Board (Water Board). Water Board staff has thoroughly reviewed the final document and this letter presents our concurrence on the long term monitoring plan.

Please don't hesitate to call me at (510) 622-2353 or E-mail to AConstantinescu@waterboards.ca.gov if you would like to discuss this letter further.

Sincerely,

A Umfort utcu Adriana Constantinescu, PG Project Manager - Moffett Field

cc: Ms. Lida Tan, Project Manager EPA
Ms. Sandy Olliges, Env. Services Director, NASA
Mr. Bob Moss, RAB Chairperson

C:\MofTett\MoffettFieldSite1FinalLTMPConLetter.doc



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX

75 Hawthorne Street San Francisco, CA 94105

May 26, 2005

Mr. Rick Weissenborn BRAC Environmental Coordinator Southwest Division Naval Facilities Engineering Command BRAC Operation Office 1230 Columbia Street, Suite 1100 San Diego, CA 92101-0961

RE: EPA Concurrence – Final Site 1 Landfill Post-Closure Long-Term Monitoring and Maintenance Plans dated March 18, 200°, Former Moffett Federal Airfield, Moffett, California

Dear Mr. Weissenborn:

The U.S. Environmental Protection Agency (EPA) received the Final Site 1 Landfill Post-Closure Long-Term Monitoring and Maintenance Plans dated March 18, 2005. EPA comments on the draft reports (September 14, 2004) have been adequately discussed and addressed in the draft final documents. EPA have no more comments on the subject reports.

If you have any questions, please feel free to call me at (415) 972-3018, or contact me by email at tan.lida@epa.gov.

Sincerely

Lida Tar

Remedial Project Manager Superfund Federal Facility Branch

EPA Region 9

cc:

Ms. Adriana Constantinescu Regional Water Quality Control Board San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, CA 94612

Mr. Don Chuck NASA M/S 218-1 Ames Research Center Moffett Field, CA 94035

Ms. Mary Parker
Remedial Project Manager
Southwest Division
Naval Facilities Engineering Command
BRAC Operation Office
230 Columbia Street, Suite 1100
San Diego, CA 92101-0961

Mr. Chris Rummel
Department of Environmental Health
County of Santa Clara Environmental Resources Agency
P.O. Box 28070
San Jose, 95159-4206

Mr. Tom Mohr Santa Clara Valley Water District 5750 Almaden Expressway San Jose, CA 95118-3686